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Eighteenth Edition

# Seed Trade Buyers Guide & Directory

published by  
**SEED WORLD**  
CHICAGO

1935

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**THE STANDARD SEAMLESS SEED BAG OF AMERICA**



# Seed Trade Buyer's Guide

Registered U. S. Patent Office

## For 1935

Compiled and Published to Promote Better Business for  
Seed Merchants Everywhere.

Containing Classified Listings of Seed Growers, Wholesalers,  
Manufacturers of Equipment, Supplies and  
Side-Line Merchandise.

Containing an Alphabetical List of Trade Marks and Slogans  
Used by Seedsmen and Manufacturers of Allied Lines

Containing Summary of State Seed Laws, Tables of Seed  
Exports and Imports, Tariff Rates, Planting and Spray-  
ing Tables, Information on Sidelines and Other  
Data of Interest to the Seed Trade. For  
Index Refer to Page 4.

It has been the endeavor of the publishers to limit the listings  
to actual growers, wholesalers or manufacturers who  
are generally recognized in the trade as being  
privileged to such classification. For index  
refer to page 4.

The publication of this book is made possible through the  
support of the advertisers whose names appear in  
bold face type in the directory section.

(Advertisers' Index page 180)

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PUBLISHED BY

325 West Huron St.

CHICAGO, ILLINOIS



**SEED WORLD**  
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A Complete Line  
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Growers of  
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in

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CARLOTS  
or LESS

## FARM SEEDS

**Northrup, Kin & Co.**  
**WHOLESALE SEEDS**  
**Minneapolis, Minn.**  
Established 1884  
Correspondence Invited



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# Wholesale Field Seeds

Buyers

Clover  
Alfalfa  
Alsike  
and  
Timothy

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TOLEDO

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The MARK of QUALITY



Summary of Requirements in Various State Seed Laws for the Labeling of Garden and Field Seeds

(This Summary prepared by Macy Spracher, Seed Analyst, Northrup, King & Co., Minneapolis, Minn.)  
(Detailed field seed labeling requirements on page 14.)

	Vegetable Seeds	Special Requirements or Regulations for Both Field and Garden Seeds	Flower Seeds	License or Tax	Test Fee for Out-of-State Individuals	Address—Laboratory
Alabama	5 Lb.—Tag same as field seeds. No small packet regulations.	Send copy of invoice of each sale to Dept. of Agriculture.	No	None	50c	Seed Lab., Dept. of Agriculture, Montgomery, Ala.
Arkansas	Does not apply.	Hard seeds not to be included in % germ. Give bushel weight on tag. Germination not over 20% below their standard.	No	None	Fee	Com. of Mines, Manufacture & Agriculture, Little Rock, Ark.
Arizona	Does not apply.		No	None	Pur. 25c plus Germ. 25c	University of Arizona, College of Agriculture, Tucson, Ariz.
California	Field peas and beans as agriculture seeds. Flower, sugar beet and garden and vegetable seeds excluded.	Hard seeds must not be included in % germination.	No	None	Pur. \$1-\$5.00 Germ. 50c-\$1.00	Federal State Laboratory, State Office Bldg., Sacramento, Calif.
Colorado	Does not apply except to vine seeds. Must be tagged—name of seed, seller and where grown.	7 point type minimum on label. Tolerance germination 10%; Purity 2%.	No	None		Colorado Seed Laboratory, Fort Collins, Colo.
Connecticut	Does not apply.	Hard seeds not to be included in % germination.	No	None		Com. of Agriculture, % Com. Agri. Expt. Station, New Haven, Conn.
Delaware	Canning house pea.		No	None	Pur. 25c, Germ. 25c	State Seed Laboratory, Dover, Del.
Florida	No seed law.		No	None		
Georgia	No seed law.		No	None		
Idaho	Does not apply.		No	None		Pure Seed Laboratory, Boise, Idaho.
Indiana	1 lb.—as field seeds.	Hard seeds not to be included in % germination.	No	Buy Indiana tags	Pur. 25c, Germ. 25c	Federal State Laboratory, Purdue Univ. Agri. Expt. Station, Lafayette, Ind.
Illinois	Does not apply.	Hard seed must not be included in % germination.	No	None	Pur. 50c-\$5.00, Germ. 50c	Division of Seed Investigation, Seed Lab.—Room 11, Centennial Bldg., Springfield, Ill.
Iowa	Does not apply.	Label not less than 8 point heavy gothic caps. Quantity in weight measure or count. Small packages exempt.	No	None		{Iowa State Inspection Dept., Dept. Agri., Des Moines, Iowa.
Kansas	Does not apply.	Hard seed must not be included in % germination.	No	None		{Seed Laboratory, Iowa State College, Ames, Iowa.
Kentucky	1 lb.—as field seeds.	Seed may be sold as "Untested (agricultural) Seed," provided no seed, except Kentucky and Canada bluegrass, has germination less than 50%.	No	Buy Kentucky tags	Pur. \$3.00, Germ. \$1.00	Dept. of Entomology & Botany, Agri. College, Lexington, Ky.
Louisiana	Agricultural seed defined as "cultivated plants." See field seeds.		No	None	Fee	Louisiana Seed Laboratory—Box 951, Baton Rouge, La.
Maine	Does not apply.	Tag of original seller not to remain on bag over 3 months.	No	None	Pur. 50c-\$5.00 Germ. 50c	Seed Laboratory, Agri. Expt. Sta., Orono, Maine.
Maryland	Does not apply.	Hard seed must not be included in % germination.	No	None		Seed Laboratory, College Park, Md.
Massachusetts	10 lbs. or more as field seeds. Every lot—kind and variety of seed, also name and address of vendor.		No	None	Pur. 50c-\$1.25 and up Germ. 30c-50c	Seed Laboratory, Agri. Expt. Station, Amherst Mass.



# field seeds



## Car Lot Shippers

**SWEET  
CLOVER  
RED CLOVER  
ALFALFA  
SUDAN  
MILLET**

**FULL  
LINE  
of  
GARDEN  
SEEDS**

**CANE  
AND ALL  
OTHER  
FIELD  
SEEDS  
SWEET CORN**

**THE NEBRASKA SEED CO.**  
**OMAHA, NEBRASKA**



	Vegetable Seeds	Special Requirements or Regulations for Both Field and Garden Seeds	Flower Seeds	License or Tax	Test Fee for Out-of-State Individuals	Address—Laboratory
Michigan	Does not apply.	Hard seeds must not be included in % germination.	No	None		State Seed Laboratory, Dept. Agri., Lansing, Mich.
Minnesota	Sugar beets and mangels labeled as field seeds.	Label in not smaller than 8 point gothic caps.	No	None	Pur. 25c-\$2.00, Germ. 25c	{Seed Laboratory, University Farm, St. Paul, Minn. Enforcement Dept. of Agriculture, State Office Bldg., St. Paul, Minn.
Mississippi	Does not apply.	1½ the % of hard seeds may be included in the % of germination.	No	None		Dept. of Agriculture, Jackson, Miss.
Missouri	Kind and variety.	"Grimm Alfalfa" in lots of 30 lbs. or more must be sealed by state where grown.	No	None		{Federal State Laboratory, Columbia, Mo. Enforcement State Board of Agriculture, Jefferson City, Mo.
Montana	Does not apply.	10 point type for year vegetable was packeted.	No	None		State Grain and Seed Laboratory, Bozeman, Mont.
Nebraska	Does not apply.	Hard seeds must not be included in % germination.	No	None	Pur. 50c-\$2.00, Germ. 25c	Seed Laboratory, Dept. of Agriculture, Lincoln, Nebr.
Nevada	1 lb.—labeled as field seeds.	Hard seeds must not be included in % germination.	No	None		State Board of Stock Commissioners, Reno, Nevada.
New Hampshire	Turnips, rutabaga and mangels labeled as field seeds.	Name of each discernible disease and % seeds infected.	Mark year tested	None		{Seed Laboratory, Agricultural Experiment Station, Durham, N. H. Enforcement Commissioner of Agriculture, Concord, N. H.
New Jersey	Garden seed and flower seed in tied or sealed packets must be marked with year tested.	Actual bushel weight of field seeds.	No	None		State Seed Laboratory, New Jersey Agricultural Experiment Station, New Brunswick, N. J.
New Mexico	1 lb.—name, % germination, date tested. % of inert if over 5%.	Seed worthless as seed or for feed, or seed carrying over 1 noxious weed in every 5 grams is forfeited to state.	No	None		Agricultural Experiment Station, State College, N. Mex.
New York	Does not apply.	8 point heavy gothic caps for label.	No	None		{State Seed Laboratory, Agricultural Experiment Station, Geneva, N. Y. Enforcement Commissioner of Agriculture, Albany, N. Y.
North Carolina	Each lot labeled % germination.	Vegetable label not less than 10 point type.	No	None		Seed Laboratory, Department of Agriculture, Raleigh, N. Car.
	Date of test.	Commissioner of Agriculture may remove poor seed even if correctly labeled.	No	Annual license \$25.00.	Pur. 25c, Germ. 25c.	
	Must be true to variety as named.		No	10 lb. or more re-tailed to farmer must have tag purchased from Commissioner of Agriculture.		
North Dakota	Does not apply to less than 5 lbs.	Do not allow variation over 10% in germination.	Over 5 lbs.	None	Pur. \$1.50, Germ. \$1.00	Seed Laboratory, Agricultural Experiment Station, College Station, Fargo, N. Dak.
Ohio	Sweet corn, cabbage, peas or beans are "agriculture seeds"—label as field seeds.	Do not allow variation over 10% in germination.	No	\$5.00 annually for each separate place of business.		State Seed Laboratory, Department of Agriculture, Columbus, Ohio.
Oklahoma	Any vegetable grown in Oklahoma on field scale considered as agriculture seed—label as field seeds.		No	None	Pur. and Germ. 50c, Singly 30c	State Seed Laboratory, State Board of Agriculture, Oklahoma City, Okla.
Oregon	1 lb.—label purity and germination.		1 lb.	None	Pur. 25c, Germ. 25c.	Federal State Laboratory, Agricultural Experiment Station, Corvallis, Ore.



# Alfred J. Brown Seed Company

*Growers of* GARDEN PEAS  
AND BEANS  
*for*  
*The Wholesale American*  
*and Export Trade*

We have carefully chosen and developed strains of unusual merit.

Our strain of Laxton Progress grown from single vine and pod selection.

It costs no more to grow or handle the best. Write for growing contracts and surplus offers.



## ALFRED J. BROWN SEED CO.

GRAND RAPIDS MICHIGAN



Summary of Requirements in Various State Seed Laws for the Labeling of Garden and Field Seeds—Continued

	Vegetable Seeds	Special Requirements or Regulations for Both Field and Garden Seeds	Flower Seeds	License or Tax	Test Fee for Out-of-State Individuals	Address—Laboratory
Pennsylvania	Vegetable Seed defined in law but excluded from labeling. Every lot—kind of seed and variety. Name and address of vendor. Does not apply.	Corn must be tagged % germination, variety and county and state where grown.  Correct weight. Before sale vendor must file with Commissioner of Agriculture a certified copy of information requested on the lot offered for sale. Seeds in small packages or from bulk in small amounts may be exempt provided container of packages or seed is labeled. Hard seeds must not be included in % germination. Label "Mixed cowpeas" or "Mixed soybeans" if less than 90% of one variety. Label "cowpeas" or "soybeans" if 90% to 98% one variety. Label one variety if it is 98% one variety.	No	None  None  \$1-\$25 license. \$25 per annum regular seed business.  None  Inspection Tax stamps 2c per bu. Buy tags 10-150 lbs. 1c; 150-200 lbs. 2c	Pur. 25c, Germ. 25c. Pur. 50c-\$1.25, Germ. 30c-50c.	State Laboratory, Bureau of Plant Industry, Department of Agriculture, Harrisburg, Pa. Bureau of Markets, Providence, R. I.  Seed Laboratory, Department of Agriculture, Columbia, S. Car.
Rhode Island						
South Carolina						
South Dakota	Does not apply.	Seeds in small packages or from bulk in small amounts may be exempt provided container of packages or seed is labeled. Hard seeds must not be included in % germination. Label "Mixed cowpeas" or "Mixed soybeans" if less than 90% of one variety. Label "cowpeas" or "soybeans" if 90% to 98% one variety. Label one variety if it is 98% one variety.	No	None	Pur. 25c, Germ. 25c.	Seed Laboratory, Agricultural Experiment Station, Brookings, S. Dak.
Tennessee	Does not apply.		No	None		Seed Laboratory, Department of Agriculture, Nashville, Tenn.
Texas	Applies only to onion and spinach. Label as field seeds.		No	Inspection Tax stamps 2c per bu. Buy tags 10-150 lbs. 1c; 150-200 lbs. 2c		State Seed Laboratory, Department of Agriculture, Austin, Texas.
Utah	Included as "Agriculture Seeds." Label as field seeds.	No license fee for mixed or unmixed seeds used solely for lawn and golf courses. Prohibit sale of insect infested seed—weevil, chalcid, etc. Prohibit any sale any seed except medical herbs and flowers if less than 60% germination.	No	None	Pur. 25c, Germ. 25c.	State Seed Laboratory, State Board of Agriculture, Salt Lake City, Utah.
Virginia	Every separated container marked "Packed For" and year. % germination if below standard.		No	None		Seed Laboratory, State Board of Agriculture, Richmond, Va.
Vermont	Does not apply.		No	\$5.00 for each brand for each year. \$10.00 per year.		Seed Laboratory, State Board of Agriculture, Burlington, Vt.
Washington	Prohibit sale if less than 2/3 standard. Must be true to variety as labeled.	Hard seeds must not be included in % germination. "Grimm Alfalfa" can be sold only in containers sealed by agents of state where grown.	No	\$5.00 for registration certificate for each kind and variety of agriculture or vegetable seed.  None	Pur. and Germ. 25c, Singly 15c	{Seed Laboratory, Agricultural Experiment Station, Pullman, Wash. Enforcement Department of Agriculture, Olympia, Wash.
West Virginia	Included as "Agriculture Seeds." Label as field seeds.		No			Seed Laboratory, Department of Agriculture, Charleston, W. Va.
Wisconsin	Every lot. % germination if 5% below standard.		No			Seed Laboratory, Department of Agriculture, Agronomy Bldg., Madison, Wis.
Wyoming	1 lb. or over. Included as "Agriculture Seed." Label as field seeds.		No		25c. each sample.	Department of Agronomy, Agricultural Experiment Station, Laramie, Wyo.



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*Red Clover	Timothy	Cowpeas
Sweet Clover	Meadow Fescue	Sudan Grass
Lespedeza	Ky. Blue Grass	Cane
Other Clovers	Orchard Grass	Millets
Bermuda Grass	Other Grasses	Sunflower
Lawn Grass	Seed Corn	Other Grains
		Ensilage Corn

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Field Seeds, Mixed Field Seeds and Lawn Grass or Special Mixtures

Key to Symbols and Abbreviations on page 17.

FIELD SEEDS Label Requirements										MIXED FIELD SEEDS (Sometimes limited to 2 kinds) Label Requirements										LAWN GRASS MIXTURE OR SPECIAL MIXTURE Label Requirements																	
Date of Last Amendment or Regulation	Weight to be Labeled	% Pure Seed	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)	Year Grown	Weight to be Labeled	Name Each Over 5%	% Each Over 5%	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)	Weight to be Labeled	Name Each Over 5%	% Each Over 5%	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)	Weight to be Labeled	Name Each Over 5%	% Each Over 5%	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)	
Alabama 1934	5 lbs.	X	X	.	.	X	.	N. Lb. A. (P. twice this allowance.)	.	5 lbs.	X	X	X	.	.	X	.	N. Lb. B. (P. twice this allowance.)	8 oz.	X	.	X	X	X	.	.	N. Lb. B. (P. twice this allowance.)	8 oz.	X	.	X	X	X	.	.	N. Lb. B. (P. twice this allowance.)	
Arizona 1921	10 lbs.	X	X	.	.	X	X	N. A. (P. certain weeds.)	.	2 lbs.	X	X	X	.	.	X	.	N. B. (P. certain weeds.)	2 lbs.	X	X	X	X	.	.	N. B. (P. certain weeds.)	8 oz.	X	X	X	X	X	.	.	N. B. (P. certain weeds.)		
Arkansas 1921	10 lbs.	X	X	.	.	X	X	N. A.	X	10 lbs.	X	X	X	X	X	X	.	N. B.	10 lbs.	X	X	X	X	X	.	.	N. B.	8 oz.	X	X	X	X	X	.	.	N. B.	
California 1933	5 lbs.	X	X	.	.	X	.	N. Lb. A. Primary noxious.	.	5 lbs.	X	X	X	.	.	X	.	N. Lb. B. primary noxious.	8 oz.	X	X	X	X	X	.	.	N. Lb. B. primary noxious.	8 oz.	X	X	X	X	X	.	.	N. Lb. B. primary noxious.	
								N. secondary nox- ious.									N. secondary nox- ious.																				
Colorado 1927	5 lbs.	X	.	.	.	X	X	N. Lb. 1-5 gms.	.		As field seeds										As field seeds																
Connecticut 1927	Every Lot	X	X	.	.	X	.	N. Oz. A.	.	Every Lot	X	X	X	.	.	X	.	N. Oz. B.	Every Lot	X	X	X	X	X	.	.	N. Oz. B.	Every Lot	X	X	X	X	X	.	.	N. Oz. B.	
Delaware 1929	10 lbs.	X	.	.	.	X	.	N. Oz. A.	.		Exempt except noxious weed sections of law.										Exempt except noxious weed sec- tions of law.																
Florida Georgia Idaho 1931	5 lbs.	No seed law. No seed law. X	.	.	.	X	X	N. Lb. (P. 1-10,000 seeds.)	X																										Name and number Lb. (P. 1 in 10,- 000 seeds.)		
Illinois 1931	Every Lot	X	X	.	.	X	X*	N. Oz. A. (P. 1-1000 seeds) (P. Sorrel 1-500 seeds) (P. Ca. Thistle 1-50 gms.)	.	Every Lot	X	X	X	.	.	X	.	N. Oz. B. (P. as in field seeds.)	Every Lot	X	X	X	X	X	.	.		Every Lot	X	X	X	X	X	.	.		(P. as in field seeds.)
Indiana 1921	1 lb.	X	.	.	.	X	X	N. Lb.	.	1 lb.	X	X	.	.	.	X	.	N. Lb.																			
Iowa 1934	Every Lot	X	X	.	.	X	X	Name each. (Pri- mary noxious P. 1-5, 25, 100 gms.)	X	10 lbs.	X	X	X	.	.	X	Yr.	N. B. (P. as in field seeds.)	8 oz.	X	X	X	X	X	.	.	N. B. (P. as in field seeds.)	8 oz.	X	X	X	X	X	.	.	N. B. (P. as in field seeds.)	



Kansas 1929	10 lbs.	X	..	..	..	X	X	..	X	X	As for unmixed field seeds.	As for unmixed field seeds.	10 lbs.	If over 1/10 of 1% give % by number of each. (P. certain weeds.)	10 lbs.	X	X	..	..	..	..	X	X	Same as mixed field seeds.			
Kentucky 1932.	1 lb.	X	X	..	..	X	X	..	X	X	N. Oz.	N. Oz.	1 lb.	N. Oz.	X	X	X	..	..	..	..	X	X	X	1 lb.	N. Oz. (5 lbs. or less exempt from nox. weed sections.)	
Louisiana 1934	10 lbs.	X	X	..	..	X	X	X	X	X	N. Oz. A.	N. Oz. B.	10 lbs.	N. Oz. A.	X	X	X	..	..	..	..	X	X	X	8 oz.	N. Oz. B.	
Maine 1919	Every Lot	X	..	..	..	X	..	..	..	..	N. Lb.			N. Lb.													
Maryland 1927	10 lbs.	X	X	..	..	X	..	..	..	..	N. A.	N. B.	10 lbs.	N. A.	X	X	X	..	..	..	..	X	X	X	8 oz.	N. B.	
Massachusetts 1927	10 lbs.	X	X	..	..	X	..	..	..	..	N. Oz. A.	N. Oz. B.	10 lbs.	N. Oz. A.	X	X	X	..	..	..	..	X	X	X	Every Lot	N. Oz. B.	
Michigan 1923	1 lb.	X	X	X	X	X	X	X	..	..	N. A.	N. Lb.	1 lb.	N. A.	X	X	X	X	X	X	X	X	X	X	8 oz.	N. Lb.	
Minnesota 1934	1 lb.	X	X	..	..	X	X	..	..	..	N. Lb. if between 10-90 per lb. called "trace." (P. 90 per lb.)	As for unmixed field seeds.	1 lb.	N. Lb. if between 10-90 per lb. called "trace." (P. 90 per lb.)	X	X	X	..	..	..	..	X	X	X	8 oz.	As field seeds except that for lawn mixtures the number is not required.	
Mississippi 1924	5 lbs.	X	X	..	..	X	..	..	..	..	N. A.	N. B.	5 lbs.	N. A.	X	X	X	..	..	..	..	X	X	X	5 lbs.	N. B.	
Missouri 1929	10 lbs.	X	X	..	..	X	X	..	..	..	N. A. (P. Canada Thistle.)	N. B.	10 lbs.	N. A. (P. Canada Thistle.)	X	X	X	..	..	..	..	X	X	X	8 oz.	N. B.	
Montana 1929	1 lb.	X	X	X	..	X	..	..	..	..	N. Oz. A.	N. Oz. B.	1 lb.	N. Oz. A.	X	X	X	..	..	..	..	X	X	X		As mixed field seeds.	
Nebraska 1921	10 lbs.	X	X	..	..	X	X*	..	..	..	N. Oz. A. (P. Canada Thistle 1 in 5 gms., label less quantity.)	X* N. Oz. B. (P. as in field seeds.)	10 lbs.	N. Oz. A. (P. Canada Thistle 1 in 5 gms., label less quantity.)	X	X	X	..	..	..	..	X	X	X	4 oz.	X* N. Oz. B.—P as in field seeds.	
Nevada 1929	1 lb.	X	X	X	X	X	X	(law) (reg.)	..	..	N. A.	N. B.	1 lb.	N. A.	X	X	X	..	..	..	..	X	X	X	1 lb.	N. B.	
New Hampshire 1921	1 lb.	X	..	..	..	X	..	..	..	..	None			None													
New Jersey 1931	10 lbs.	X	..	..	..	X	..	..	..	..	N. Lb. 1 in 5 gms.	N. Lb. 1-5 gms.	Every Lot	N. Lb. 1 in 5 gms.	X	..	X	..	..	..	..	X	X	X		As mixed field seeds.	
New Mexico 1919	1 lb.	..	X	X	X	X	X	..	..	..	% by weight of each.			% by weight of each.													
New York 1934	Every Lot	X	X	..	..	X	..	..	..	..	N. Lb. A.	N. Lb. B.	Every Lot	N. Lb. A.	X	X	X	..	..	..	..	X	X	X	Every Lot	N. Lb. B.	
North Carolina 1931	Every Lot	X	X	..	..	X	X	X	..	..	% each.	% each.	Every Lot	% each.	X	..	X	X	X	X	X	% each.				Every Lot	See mixed field seeds.



## Field Seeds, Mixed Field Seeds and Lawn Grass or Special Mixtures (Continued)

FIELD SEEDS Label Requirements										MIXED FIELD SEEDS (Sometimes limited to 2 kinds) Label Requirements						LAWN GRASS MIXTURE OR SPECIAL MIXTURE Label Requirements					
Date of Last Amendment or Regulation	Weight to be Labeled	% Pure Seed	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)	Weight to be Labeled	Name Each Over 5%	% Each Over 5%	% Weed Seeds	% Inert Matter	% Other Crop Seeds	% Germ. & Date Tested	Where Grown	Noxious Weeds (See Page 18)				
North Dakota 1931	Every Lot	X	X	..	..	X	X*	N. Lb. A <sub>a</sub>	Every Lot	X	X	X	..	..	X	X*	N. Lb. B.				
Ohio 1929	10 lbs.	X	X	..	..	X	X*	N. each A.	10 lbs.	X	X	X	..	..	..	..	N. B.				
Oklahoma 1929	Every Lot	X	X	..	..	X	X	N. A.	Every Lot	X	X	X	X	..	..	..	N. B.				
Oregon 1913	1 lb.	May be labeled standard. If below standard give { If } { 2% } { If } { 2% } .. X	..	..	..	..	..	N. (a) (P. 1 in 500 seeds.) (b) (P. 1 in 5000 seeds.) (c) (P. 1 in 20000 seeds.)	Every Lot	X	X	X	X	..	..	..	See mixed field seeds. As field seeds.				
Pennsylvania 1921	10 lbs.	X	X P3%	..	..	X	X*	N. Oz. A. (P. Dodder & Canada Thistle 1 in 5gms.)	10 lbs.	X	X	X P3%	..	..	..	X*	N. Oz. B. (P. as in field seeds.)				
Rhode Island 1929	Every Lot	X	X	..	..	X	..	N. Oz. A.	Every Lot	X	X	X	X	..	..	..	N. Oz. B.				
South Carolina 1922	1 lb.	X { If } { 2% } { If } { be- } { low } { Std. }	..	..	..	X	X	N. if less than 20 in 1,000 seeds, (P. if over.)	Every Lot	X	X	X	..	..	..	Exempt until regulations are made by Dep't of Agriculture.					
South Dakota 1925	1 lb.	.. (P. 10% impurities.)	X	X	X	X	..	Name.	1 lb.	X	..	..	..	..	..	..	X				
Tennessee 1925	1½ bu.	May label "Standard." If below standard label X { If } { 2% } { X } { 10% }	..	..	..	..	..	Name. (P. 1 in 5 gms.). (P. any Onion and John-son grass.)	1½ bu.	X	X	..	..	..	..	Mixtures for lawn or pasture exempt except from weed sec-tions of law.					
Texas 1931	10 lbs.	X	X	X	X	X	X*	N. A.	10 lbs.	X	..	X	X	..	X	..	See mixed field seeds.				



Key to Symbols and Abbreviations Used in Summary of State Seed Laws

Utah 1933	Every Lot	X	X	..	X	X	..	X	X	N. Group I Lb. (P. Group II.)	Every Lot	X	..	X	X	N. Group I Lb. (P. Group II.)
Virginia 1934	10 lbs.	X	X	..	X	X	..	{ X } { 10% }	X*	N. Oz. (P. Dodder 2 in 5 gms.).	8 oz.	X	..	X	X	N. Oz. (P. Dodder 2 in 5 gms.).
Vermont 1926	10 lbs.	X	X	..	X	X	..	X	X*	N. Oz. A.	Every Lot	X	..	X	X	N. Oz. A.
Washington 1923	1 lb.	X	{ if { If } { 2% } { 1/2% }	..	X	X	..	{ X } { 2% }	X	{ (a) P. Any (b) P. 5 per lb. (c) P. 15 per lb. (d) P. 90 per lb.	Every Lot	X	..	X	..	As in field seed.
West Virginia 1926	Every Lot	X	X	..	X	X	..	X	..	N. Oz. A. (P. certain weeds if over 1 in 5 gms.)	Every Lot	X	..	X	..	N. Oz. B. (P. as in field seeds.)
Wisconsin 1931	1 lb.	X	{ If } { Over } { 2% }	..	X	X	..	X	X	P. 1 in 3,000 seeds, P. Buckhorn 1 in 1,000 seeds, name if fewer.	Every Lot	X	..	X	X	Exempt except from weed sections of law.
Wyoming 1929	Every Lot	X	P3%	..	X	X	..	X	Otherwise as unmixed field seeds.	P.	Every Lot	X	..	X	X	Exempt except from weed sections of law.

P.—Prohibited.  
N.—Name.  
X.—Required on Seed Label.  
Oz.—Give the approximate number per oz.  
Lb.—Give the approximate number per lb.  
A.—Name the noxious weeds which are present singly or collectively as follows:  
(1) In excess of one seed in each 5 grams of timothy, redtop, Kentucky or Canada bluegrass, fescues, brome grass, rye grasses, clovers, alfalfa, etc.  
(2) One in 25 grams of millets, rape, flax, sudan.  
(3) One in 100 grams of wheat, oats, rye, barley, buckwheat, vetches and other seeds as large or larger.  
A.s.—In North Dakota (1) In excess of one seed in 20 grams.  
(2) In excess of one seed in 50 grams.  
(3) In excess of one seed in 100 grams.  
B.—Name the noxious weeds which are present singly or collectively in excess of one in 15 grams.  
\*—Illinois where grown stated only on corn.  
Nebraska where grown stated only on Turkestan and Italian alfalfa and Chilean and Italian red clover.  
N. Dakota where grown stated only on corn (giving county as well as state) and alfalfa and clovers.  
Ohio where grown only for alfalfa and red clover.  
Pennsylvania where grown stated only on Turkestan and Italian alfalfa and Chilean and Italian red clover.  
Texas—year in which grown stated only on onion and spinach.  
Vermont where grown only on imported alfalfa, red clover and orchard grass.  
Virginia where grown only on Turkestan and Italian alfalfa and Italian Chilean red clover.  
Wisconsin where grown only on cereal grains, corn, and alfalfa.  
This tabulation includes only such label requirements as may vary in the different states. It is presumed that every label will state the full name and address of the vendor and the commonly accepted name of the seed, also if the seed is a mixture, that it shall be labeled a mixture.  
For noxious weeds in various states see page 18.



NOXIOUS WEED SEEDS

PRACTICALLY all of the State Seed Laws name some noxious weed seeds. The sale of agricultural seed containing any of the noxious weed seeds is prohibited in some of the states. Most states, however, allow a very small percentage to be present. Regulations vary in the different states. A complete summary of all state seed laws may be found on page 8.

Alabama . . . . .	Wild Onion, Bermuda Grass, Quack Grass, Dodder, Johnson Grass, Nut Grass, Canada Thistle, Hawkweed, Corn Cockle, Chicory.
Arizona . . . . .	Dodders, Russian Thistle, Johnson Grass, Bermuda Grass, Florida Nut Grass, Wild Mustard, Careless Weed, Wild Oats, Lamb's Quarter, Wild Barley, Rag Weed, Burr Grasses. Prohibit Johnson Grass, Canada Thistle, Russian Thistle, Scotch Thistle, Bull Thistle, Cocklebur, and Burdock. (Nox. weed law of 1913.)
Arkansas . . . . .	Dodders, Buckhorn, Plantains, Sorrels, Docks, Cheat, Red Rice, Wild Carrot, Wild Onion, Thistle, Nut Grass, Johnson Grass, Whitetop.
California . . . . .	Primary Noxious: Johnson Grass, Camel's Thorn, Hoary Cress, Morning Glory, Canada Thistle, Russian Knapweed. Secondary Noxious: Yellow Star Thistle, Goat Grass, Coast Dandelion, Russian Thistle, Silver-leaf Nightshade, Creeping Sow Thistle, Klamath Weed, Nut Grass, White or Creeping Mallow, Dodder, Puncture Vine.
Colorado . . . . .	Dodders, Wild Oats, Plantains, Bindweed, Poverty Weed, Crab Grass, Cheat, Canada Thistle, Cockle, Sow Thistle, Wild Barley, Hopclover, Mustards.
Connecticut . . . . .	Quack Grass, Canada Thistle, Plantain, Hawkweed, Dodder, Curled Dock.
Delaware . . . . .	Quack Grass, Canada Thistle, Dodders, Wild Mustard, Wild Oats, Orange Hawkweed.
Idaho . . . . .	Wild Mustards, Quack Grass, Canada Thistle, Wild Oats, Dodders, Corn Cockle, Plantains, Perennial Sow Thistle, French Weed, Hoary Cress, Wild Morning Glory, Spurge, Puncture Vine, Yellow Toadflax, Russian Knapweed,
Illinois . . . . .	Canada Thistle, Quack Grass, Wild Mustard, Wild Carrot, Dodder, Dock, Buckhorn Plantain, Ox-eye Daisy, Field Sorrel, Johnson Grass.
Indiana . . . . .	Buckhorn, Bracted Plantain, Canada Thistle, Chicory, Common Plantain, Corn Cockle, Curled Dock, Dodder, Horse Nettle, Wild Mustard, Ox-eye Daisy, Prickly Lettuce, Quack Grass, Red Sorrel, Whitetop, Wild Carrot, Wild Onion, Yellow Trefoil.
Iowa . . . . .	Primary Noxious: Quack Grass, Canada Thistle, Perennial Sow Thistle, Perennial Pepper Grass, European Morning Glory, Horse Nettle, Leafy Spurge, Russian Knapweed, Buckhorn. Secondary Noxious: Wild Carrot, Sour Dock, Smooth Dock, Sheep Sorrel, Wild Oats, Wild Mustard, Indian Mustard, Black Mustard, Dodders.
Kansas . . . . .	Canada Thistle, Corn Cockle, Buckhorn, Mustards, Frenchweed, Quack Grass, Wild Parsnip, Wild Onion. Prohibit 1-5 grams Dodder and Johnson Grass. Prohibit 1-100 grams Field Bindweed.
Kentucky . . . . .	Quack Grass, Dodders, Sorrel, Buckhorn, Corn Cockle, Wild Onion, Canada Thistle.
Louisiana . . . . .	Johnson Grass, Tie Vine, Cocklebur, Wild Mustards, Crab Grass, Large Docks, Dandelion, Cocoa Grass, Dodder, Foxtail, Ox-eye Daisy, Thistle, Bermuda Grass.
Maine . . . . .	None listed in law itself—large list named in Regulations.
Maryland . . . . .	Wild Onion, Bermuda Grass, Quack Grass, Dodder, Canada Thistle, Hawkweed, Chicory.
Massachusetts . . . . .	Dodder, Quack Grass, Wild Mustard, Canada Thistle.
Michigan . . . . .	Quack Grass, Dodders, Canada Thistle, Wild Carrot, Mustards.
Minnesota . . . . .	Quack Grass, Canada Thistle, Perennial Sow Thistle, Dodders, Leafy Spurge, Ox-eye Daisy, Buckhorn Plantain.
Mississippi . . . . .	Wild Onion, Bermuda Grass, Quack Grass, Dodder, Johnson Grass, Nut Grass, Canada Thistle, Hawkweed, Corn Cockle, Chicory.
Missouri . . . . .	Quack Grass, Dodders, Russian Thistle, Wild Carrot, Sorrels, Docks, Wild Onion, Buckhorn and other varieties of Plantain. Prohibit Canada Thistle.
Montana . . . . .	Quack Grass, Fan Weed, Wild Oats, Dodder, Canada Thistle, Wild Mustard.
Nebraska . . . . .	Small Flowered Morning Glory, Wild Mustard, Quack Grass, Wild Oats, Dodders, Canada Thistle.
Nevada . . . . .	Dodder, Star Thistle, Thistles, Russian Thistle, Hoary Cress, Morning Glory, Johnson Grass, Nut Grass, Creeping Mallow, St. Johnswort, Dandelion, Water Cress, Puncture Vine, Mustards.
New Hampshire . . . . .	No noxious weeds named.
New Jersey . . . . .	Canada Thistle, Dodders, Quack Grass, Horse Nettle, Russian Knapweed.
New Mexico . . . . .	Quack Grass, Fan Weed, Mustard, Wild Oats, Dodder.
New York . . . . .	Quack Grass, Wild Mustards, Canada Thistle, Dodder, Crab Grasses, Docks.
North Carolina . . . . .	Wild Onion or Wild Garlic, Dodder, Wild Oats, Corn Cockle, Cheat.
North Dakota . . . . .	Quack Grass, Canada Thistle, Perennial Sow Thistle, Dodder, Leafy Spurge, Field Bindweed.

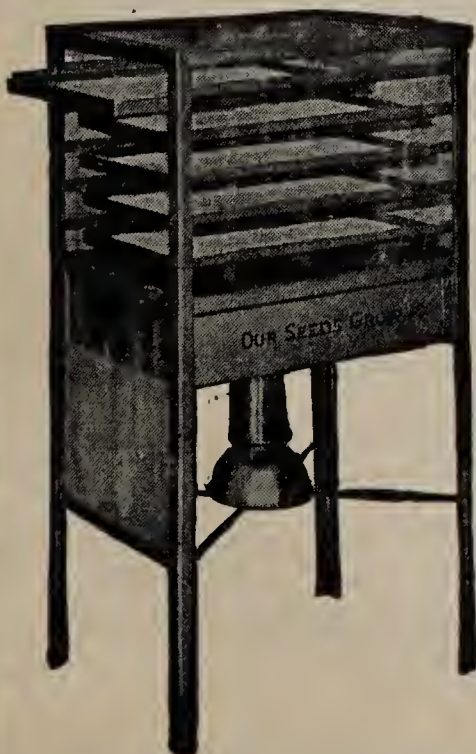


## NOXIOUS WEED SEEDS—Continued

Ohio.....	Canada Thistle, Wild Onion, Quack Grass, Dodders, Plantains, Wild Carrot, Ox-eye Daisy, Corn Cockle, Docks, Chicory.
Oklahoma.....	Dodder, Russian Thistle, Bindweed, Johnson Grass, Canada Thistle, Perennial Bull Nettle.
Oregon.....	(a) Wild Oats; (b) Wild Mustard and Corn Cockle; (c) Canada Thistle, Dodders, Quack Grass.
Pennsylvania...	Wild Onion, Quack Grass, Canada Thistle, Devil's Paint Brush, King Devil, Perennial Sow Thistle, Horse Nettle, Bindweed, Dodder.
Rhode Island..	Quack Grass, Canada Thistle, Dodders, Wild Mustards, Crab Grasses, Docks, Corn Cockle, Buckhorn, Wild Carrot.
South Carolina.	Clover Dodder, Field Dodder, White Mustard, Wild Oats.
South Dakota..	Quack Grass, Canada Thistle, Dodder.
Tennessee.....	Wild Mustard, Quack Grass, Canada Thistle, Wild Oats, Dodders, Cockle, Sour Dock, Ox-eye Daisy, Wild Onion, Johnson Grass.
Texas.....	Dodder, Johnson Grass, Russian Thistle, Bindweed, Blue Weed, Wire Grass, Bermuda Grass.
Utah.....	Group I: All Mustards, Dodders, Buckhorn, Wild Oats, Fanweed. Group II: White Top, Canada Thistle, Wild Morning Glory, Whorled Milkweed, Burdock, Russian Knapweed, Puncture Vine, Perennial Sow Thistle, Ground Cherry, Quack Grass.
Vermont.....	Quack Grass, Mustards, Canada Thistle, Dodder, Ergot, Corn Cockle, Poison Hemlock.
Virginia.....	Quack Grass, Wild Onion Bulblets, Canada Thistle, Dodder, Bermuda Grass, Hawkweed, Johnson Grass.
Washington..	(a) Bindweed or Wild Morning Glory, Canada Thistle, Corn Cockle; (b) Quack Grass, Dodder, Fanweed, Perennial Sow Thistle, Poverty Weed; (c) Wild Oats; (d) Russian Thistle, Wild Mustard, Jim Hill Mustard ( <i>Sisymbrium altissimum</i> ), Buckhorn, Darnel.
West Virginia..	Wild Onion, Johnson Grass, Hawkweed, Buckhorn, Wild Mustard, Indian Mustard, Corn Cockle, Ox-eye Daisy, Star Thistle, Wild Carrot, Galinsoga. Prohibit 1-5 grams. Quack Grass, Canada Thistle, Dodder, Perennial Sow Thistle.
Wisconsin.....	Canada Thistle, Quack Grass, Dodders, Wild and Indian Mustard, Buckhorn, Wild Oats, Corn Cockle, Ox-eye Daisy, Snapdragon, Sow Thistle.
Wyoming.....	Wild Mustard, Quack Grass, Canada Thistle, Corn Cockle, Dodder.

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Lane Wilson, 2nd Vice Pres.,  
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Earl M. Page, Sec'y,  
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H. G. Windheim, Treas.,  
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W. E. Bass, Sec'y-Treas.,  
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### Colorado Seedsmen's Ass'n

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E. H. Hart, Sec'y-Treas.,  
c/o Chas. C. Hart Seed Co.,  
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114 N. Galt Ave.,  
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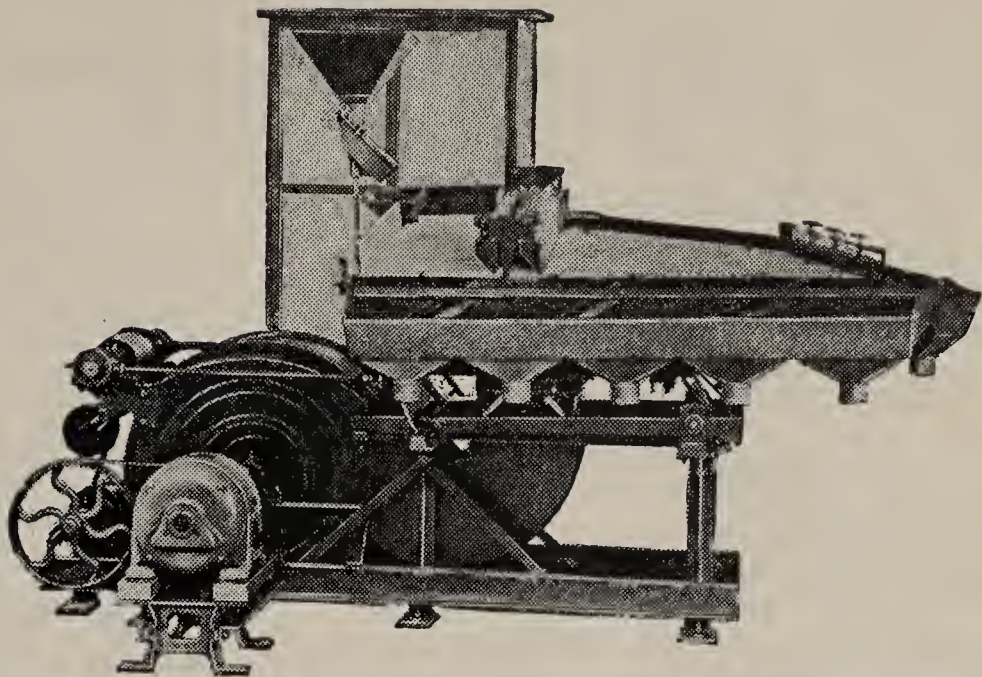
W. G. Kelly, Pres.,  
c/o Kellogg-Kelly Seed Co.,  
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Carl Chesmore, Jr., Sec'y,  
c/o Chesmore Seed Co.,  
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*The Grand Junction Seed Co.*  
MOUNTAINALTA SEED  
A SPECIALTY

Grand Junction Colo.

March 17 1931.

Sutton, Steele & Steele Inc.  
Dallas Texas

Gentlemen:

The Grand Junction Seed Co. writes to you to inform you that we have received your letter of the 14th inst. in which you state that you are interested in our Gravity Separator. We are pleased to hear of your interest in our machine and we are sure that you will find it of great value to you in your seed business. We are sure that you will find it of great value to you in your seed business. We are sure that you will find it of great value to you in your seed business.

We were somewhat dubious when we read through many of the testimonials that your Mr. Steele gave us at the time we purchased one of your Gravity Separators. However after we put the machine up and in operation we could easily understand the enthusiasm shown in many of the letters. You can add us to your list of satisfied users who would not sell our machine for double the price we paid for it if we could not secure another one.

We had problems here in handling our sweet corn and lettuce and carrot seed which it seemed almost impossible for us to solve until we secured your machine.

We feel that we can recommend your machine highly to anyone in the seed business, for they can certainly find many uses for it in handling seeds of almost any nature.

Yours truly,  
THE GRAND JUNCTION SEED COMPANY

*[Signature]*  
President

ASD:G

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 SEED CO.**

Stockton, Calif.



CHARACTERISTICS OF FIELD SEEDS

VARIETY	Viability of Good Seed	Purity of Good Seed	Average Germination One Year Old	Average Length of Vitality Years	Weight of Seed Per Bu. Legal	Weight of Seed Per Bu. Actual	Quantity Required Per Acre	Yield of Seed Per Acre	Number of Seeds Per Pound Average
Alfalfa.....	97-99	98-99	94	6-8	60	60-63	15-20	300-700	220,000
Bluegrass, Kentucky.....	70-85	75-85	70-85	3-4	14	14-28	20-30	200-350	2,400,000
Bluegrass, Canada.....	85	75-85	70-85	3-4	14	14-24	15	200-500	2,400,000
Brome Grass.....	90-95	98-99	85-90	5	14	12-20	10-14	250-350	137,000
Clover, Alsike.....	99	99	75	2	60	60-66	8-12	100-300	700,000
Clover, Red.....	99	99	90	5-6	60	60-63	8-12	100-300	250,000
Clover, White.....	99	98	75	2	60	60-63	8-12	200-300	700,000
Clover, Crimson.....	99	99	90	2	60	60-63	12-20	200-300	125,000
Clover, Sweet.....	95-98	99	90-95	5	.....	.....	20-30	150-400	235,000
Cowpea.....	90	99	80	2	60	Variable	30-60	900-1800	1,800-5,100
Fescue, Meadow.....	95	90	93	2	.....	20-30	10-15	200-300	250,000
Millet, Foxtail (Common, Golden, Hungarian, Siberian).....	90	98	88	4	48-50	40-55	25-50	.....	200,000
Orchard Grass.....	98	97	90	2-3	14	12-22	12-20	140-168	400,000
Rape.....	95	99	90	6	.....	.....	2-4	600-1000	.....
Redtop.....	95	95-98	.....	6	14	12-40	10-20	.....	4,135,900
Rye Grass, Perennial.....	95	98	80	2	.....	10-30	25-35	250-500	336,000
Rye Grass, Italian.....	95	98	80	2	20	12-24	35-40	500	285,000
Soy Bean.....	98	99	90	2	60	60	20-30	1000-2400	2,144-6,388
Timothy.....	98	98	95	5-6	45	42-50	9-15	225-450	1,170,500
Vetch.....	95	99	90	3	60	60	40-90	600-720	8,500-16,000



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ALFALFA  
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KY. BLUE GRASS  
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*Specialties*

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WE  
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YOUR  
INQUIRIES

Domestic Rye Grass,  
Austrian Field Peas,  
Spring, Hungarian  
and Hairy Vetches,  
Seaside Bent Grass,  
Astoria Bent Grass,  
Red, Alsike and White  
Clover, Ladino Clover  
and Reed Canary.

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SEED COMPANY  
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SWEET, DENT, FLINT, ENSILAGE  
AND POP-CORNS

C. S. CLARK & SONS · Wakeman, Ohio



## RED CLOVER SEED PRICES AT TOLEDO

Low and High Cash Prices per Bushel for Prime Seed by Months

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec
1923..	13.25	12.95	11.95	11.45	11.00	10.05	10.00	11.05	12.25	14.15	12.95	12.95
	13.50	13.65	13.15	12.00	11.45	10.85	10.70	12.65	14.60	15.20	14.25	13.40
1924..	12.60	11.35	11.30	10.75	10.80	11.00	11.35	11.80	12.75	16.50	17.65	19.05
	13.90	12.85	12.35	11.50	11.40	11.65	12.40	13.30	17.60	18.20	19.90	19.80
1925..	19.15	18.10	16.50	16.40	15.00	16.25	16.00	16.25	14.80	16.75	14.30	14.75
	19.85	20.00	18.75	17.20	16.30	17.55	17.25	17.45	16.75	18.25	15.50	17.05
											*18.50	*18.25
											*18.75	*18.50
1926	14.85	14.85	14.25	14.35	14.35	17.50	17.50	17.75	19.25	19.00	20.00	20.00
	16.00	15.70	15.40	14.40	17.50	17.70	17.75	19.50	21.75	20.00	20.00	20.50
	*18.75	*20.00	*21.00	*21.00	*21.00	*21.50	*22.00	†	*21.00	*21.00	21.60	22.25
	*20.00	*21.00	*21.00	*21.00	*21.00	*22.00	*22.00	†	*21.75	*22.75	22.50	22.85
1927	20.50	21.50	16.75	16.75	13.75	13.00	13.90	13.75	13.75	14.00	15.50	16.30
	21.50	23.00	17.65	17.40	16.85	13.90	14.25	14.00	14.50	15.50	16.40	16.40
	*23.00	*23.50	*24.75	*26.50	*26.50	**	.....	.....	.....	*15.60	*17.60	*17.55
	*23.50	*24.75	*27.00	*27.00	*26.50	**	.....	.....	.....	*17.90	*18.40	*18.70
1928	15.75	14.75	14.50	13.75	12.60	13.00	14.25	14.00	14.00	13.75	12.65	12.60
	16.30	15.75	14.75	14.50	13.75	14.25	14.25	14.25	14.25	14.25	13.75	12.75
	*18.05	*16.50	*16.65	*16.75	*16.50	*16.60	*17.75	*17.00	*17.50	*18.00	*17.45	*18.00
	*18.85	*18.05	*17.75	*17.25	*16.60	*17.75	*18.00	*17.50	*18.20	*18.65	*18.50	*18.25
1929	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.00	11.00	11.00	10.25	10.25
	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.00	11.00	11.00	10.25
	*18.00	17.50	*17.50	*17.25	*17.00	*16.00	*16.00	*12.60	*11.65	*11.85	*10.65	*11.00
	*18.25	*18.00	*17.50	17.50	*16.00	*16.00	*16.00	*16.00	*12.50	*11.10	*11.10	*11.25
1930	9.50	9.00	9.00	9.00	Stopped Trading in Imported Seeds							
	10.25	9.50	9.00	9.00	Stopped Trading in Imported Seeds							
	*10.90	*10.80	*10.40	*11.40	11.75	11.75	12.60	13.50	14.75	15.00	15.35	15.35
	*11.30	*11.00	*11.50	*11.75	11.75	12.50	13.50	14.75	15.50	15.50	15.35	15.35
1931..	15.35	14.75	14.00	14.00	14.00	13.75	13.50	9.00	7.50	7.50	8.25	8.50
	15.35	15.00	15.00	14.00	14.00	14.00	13.75	13.50	8.50	8.10	9.00	9.00
1932..	8.60	8.75	8.75	8.75	9.00	†	†	†	5.50	5.50	5.30	5.30
	8.75	8.75	8.75	9.00	9.00	†	†	†	5.65	5.65	5.50	5.50
1933	5.40	5.10	5.10	5.80	6.20	7.50	7.75	7.00	6.00	6.80	7.50	7.90
	5.40	5.40	6.00	6.20	7.50	7.75	8.50	8.50	7.00	7.40	7.90	8.00
1934	.....	.....	.....	8.25	8.25	8.25	8.25	Toledo Market Discontinued				
				8.25	8.25	8.25	8.25	on July 11, 1934				

\*Domestic red clover seed. Other quotations in November and December of 1925 and all of 1926, 1927 1928, 1929 and 1930 are on imported seed.

†Stopped quoting cash domestic from July 22 to September 24, 1926.

\*\*Stopped quoting cash domestic May 14, 1927.

‡Did not quote prices during June, July and August, 1932.

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**GRASS SEEDS — FIELD SEEDS**  
**IMPORTED PIGEON GRAINS**  
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Front and Arch Streets

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JACKSON, MICHIGAN

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**H.C. KING & SONS INC.**  
**Battle Creek Michigan**—MICHIGAN GROWN—  
**RED CLOVER.....ROSEN RYE**  
**MAMMOTH CLOVER·WINTER VETCH**  
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Department**

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OHIO GROWNRed Clover, Alsike  
and Timothy Seeds*The*  
**ACKERMAN CO.**  
LIMA, OHIO



ALSIKE CLOVER SEED PRICES AT TOLEDO

High and Low Cash Prices per Bushel by Months

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1919	17.30	16.50	16.75	24.00	26.00	19.00	22.25	24.25	24.30	26.50	29.50	30.05
	19.65	17.50	25.50	26.00	26.00	22.25	26.25	25.75	26.50	29.75	31.25	33.00
1920	32.80	34.70	34.85	27.00	22.50	24.50	21.00	17.50	15.25	16.50	15.60	16.25
	36.25	36.20	36.50	36.25	30.00	26.75	25.00	21.50	18.00	18.50	18.00	17.75
1921	15.50	14.50	13.00	13.50	13.50	13.50	10.10	10.05	10.45	10.50	10.25	10.70
	17.50	15.50	15.00	14.15	13.50	13.50	12.25	11.35	10.75	10.75	10.90	11.40
1922	11.40	12.00	11.50	10.50	10.50	11.50	10.25	9.50	10.00	10.05	10.45	10.65
	12.00	12.65	12.50	11.50	11.50	11.75	11.75	10.25	10.25	11.00	11.50	11.00
1923	10.55	10.45	10.45	10.50	10.00	10.25	10.15	10.15	10.40	10.00	9.25	9.30
	10.95	10.60	10.50	10.50	10.50	10.25	10.25	11.15	10.75	10.50	10.00	9.45
1924	8.70	8.35	8.70	8.75	9.70	9.80	10.65	10.00	10.00	12.15	12.25	12.60
	9.50	8.80	9.20	9.50	10.20	10.80	10.80	10.80	12.25	12.75	13.30	13.25
1925	13.05	12.60	12.75	14.40*	....	....	....	....	....	....	....	15.60
	13.60	13.60	14.25	15.15	....	....	....	....	....	....	....	16.25
1926	16.00	16.50	17.00	17.00	17.00	15.00	14.50	14.50	16.50	18.00	18.25	19.75
	16.50	17.00	17.00	17.00	17.00	17.00	15.50	16.25	18.75	18.50	19.75	20.85
1927	21.00	22.50	22.75	23.75	24.00	....	....	14.60	14.80	14.80	15.40	16.00
	22.50	22.75	23.75	24.00	24.00	....	....	17.00	15.25	15.40	16.70	16.80
1928	16.20	15.95	15.00	15.00	15.00	15.00	16.25	16.25	18.75	18.75	18.60	19.00
	16.30	16.25	15.95	15.45	15.00	16.25	16.50	18.75	18.75	19.75	19.90	19.20
1929	19.00	19.00	19.25	20.00	20.00	....	11.00	10.10	10.40	10.50	10.40	10.50
	19.00	19.25	20.00	20.00	20.00	....	12.00	11.75	10.95	10.90	10.50	10.75
1930	10.60	10.40	10.40	11.00	11.00	11.00	11.20	11.80	12.50	13.65	13.65	13.75
	10.75	10.65	11.00	11.00	11.00	11.20	11.95	12.50	13.75	13.75	13.75	13.75
1931	13.75	13.90	14.00	14.00	14.00	14.00	8.65	8.10	7.50	7.50	8.00	8.50
	13.90	14.00	14.00	14.00	14.00	14.00	14.00	8.65	7.75	7.90	8.50	8.75
1932	8.50	8.75	8.75	8.75	8.75	†	†	†	5.50	5.50	5.50	5.50
	8.75	8.75	8.75	8.75	8.75	†	†	†	5.75	5.85	5.85	5.90
1933	5.80	5.80	5.80	6.20	6.20	7.50	7.75	8.50	8.00	8.25	8.50	8.50
	5.90	5.80	6.20	6.20	7.50	7.75	8.75	8.75	8.50	8.50	8.50	8.50
1934	8.50	8.50	8.50	8.50	8.50	8.50	Toledo Market Discontinued on July 11, 1934					
	8.50	8.50	8.50	8.50	8.50	8.50						

\*Cash prices not quoted after April 20, 1925.

†Did not quote prices during June, July and August, 1932.

WHOLESALE CASH PRICES OF FIELD SEEDS, 1922-34

(For best grades, per 100 pounds)

Compiled by Hay, Feed & Seed Division, Bureau of Agricultural Economics.  
U. S. Department of Agriculture

Year	Alfalfa, Kansas City	Red clover, Chicago	Alsike clover, Chicago	Sweet clover, Minne- apolis	Lespe- deza, Louis- ville	Hairy vetch, Balti- more	Timothy, Chicago	Red- top, Chicago	Kentucky blue- grass, Kansas City	German millet, Kansas City	Amber sorgo, Kansas City	Sudan grass, Kansas City
1922	18.00	23.50	18.20	8.50	17.10	12.00	7.00	22.65	53.50	2.15	2.00	4.70
1923	20.00	20.90	16.50	12.40	19.00	16.80	7.00	18.70	25.90	3.95	4.25	15.10
1924	22.30	20.90	15.70	15.30	21.10	10.40	8.00	13.60	25.10	4.00	1.70	8.20
1925	22.70	34.00	23.40	12.30	19.50	8.90	6.80	14.40	28.00	5.00	2.20	5.70
1926	20.40	33.70	27.60	9.70	15.20	12.30	7.90	31.25	38.00	3.10	2.80	4.20
1927	19.90	42.50	37.30	13.60	8.20	15.20	6.00	25.30	20.50	3.30	3.30	7.00
1928	21.80	30.60	27.80	8.50	18.80	9.70	4.70	13.10	19.70	2.40	2.00	3.70
1929	26.00	33.70	34.70	8.50	20.60	9.30	6.60	14.60	31.30	3.40	2.10	5.60
1930	24.85	21.35	19.90	8.00	14.50	9.00	8.05	16.45	20.00	3.45	3.45	5.40
1931	22.55	25.05	23.90	9.20	14.70	8.45	10.55	24.20	34.35	3.70	2.80	7.40
1932	13.65	16.35	15.05	5.50	8.30	7.50	4.30	8.70	13.45	1.75	1.15	1.70
1933	13.60	11.40	11.95	4.50	7.50	7.00	3.25	5.30	8.35	1.60	1.15	2.10
1934	13.00	14.75	16.25	6.50	5.00	8.75	8.50	8.40	13.40	3.35	1.60	5.50





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Cotton Seed, Wannamaker Strain Big  
Boll

Cotton Seed, Dixie Triumph, Wilt Re-  
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RANGE OF MARCH CLOVER SEED PRICES AT TOLEDO

Low and High Prices per Bushel by Months

Crop of	Aug.	Sept.	Oct.	Nov.	Dec.		Jan.	Feb.	Mar.
1921.....	11.70	11.40	12.30	11.75	12.55	1922	{13.20	14.00	14.50
	13.95	13.30	12.95	12.75	13.35		{14.25	15.95	16.15
1922.....	9.05	9.85	11.35	12.85	13.35	1923	{13.35	12.70	12.75
	10.30	11.70	12.80	13.50	13.90		{13.65	13.50	13.05
1923.....	11.90	13.15	13.85	13.05	13.05	1924	{12.80	11.35	11.50
	13.40	15.20	14.60	13.90	13.60		{14.05	13.05	12.35
1924....	13.00	13.20	17.00	17.95	19.15	1925	{19.35	18.00	16.50
	13.65	18.50	18.50	19.95	20.00		{20.10	19.85	18.45
1925.....	14.45	14.45	15.05	14.75	14.65	1926	{14.65	14.85	14.25
	15.35	16.05	16.00	15.50	15.20		{16.10	15.75	15.40
1926.....	17.25	16.90	15.95	16.85	17.45	1927	{17.70	16.60	16.65
	17.75	19.20	17.25	17.70	18.00		{18.50	17.85	17.65
1927.....	.....	15.85	15.95	17.60	17.80	1928	{18.00	16.40	16.65
	.....	16.80	17.75	18.50	18.70		{19.00	18.00	17.75
1928.....	.....	.....	.....	17.95	18.35	1929	{18.20	17.55	17.50
	.....	.....	.....	19.00	18.75		{18.60	18.10	17.50
1929.....	.....	.....	11.60	11.15	11.50	1930	{11.15	10.80	10.45
	.....	.....	12.25	11.60	11.75		{11.50	11.15	11.70
1930....	15.75	15.75	15.75	15.55	15.40	1931	{15.15	14.75	14.00
	16.25	16.25	16.25	15.75	15.50		{15.40	15.15	14.75
1931.....	.....	.....	8.50	8.75	8.90	1932	{8.90	8.75	8.75
	.....	.....	8.75	9.50	9.00		{9.00	8.90	8.75
1932.....	.....	Not quoted			.....	1933	Not quoted		
	.....	.....	7.25	7.75	8.15	1934	{8.25	8.25	8.25
1933.....	.....	.....	7.75	8.15	8.25		{8.25	8.25	8.25

FIELD SEED PRODUCTION IN UNITED STATES  
FOR PAST FIVE YEARS

Compiled by Hay, Feed & Seed Division, Bureau of Agricultural Economics.  
U. S. Department of Agriculture

Kind	Lbs. or Bus.	1930	1931	1932	1933	1934
Alfalfa*	Lbs.	70,000,000	50,300,000	32,100,000	55,400,000	40,000,000
Clover, alsike*	Lbs.	26,400,000	21,000,000	26,200,000	25,000,000	13,000,000
Clover, red*	Lbs.	63,000,000	46,100,000	75,000,000	59,000,000	36,000,000
Clover, sweet*	Lbs.	50,900,000	50,300,000	41,600,000	41,400,000	33,000,000
Clover, white	Lbs.	1,200,000	1,000,000	775,000	900,000	800,000
Clover, crimson	Lbs.	500,000	1,000,000	1,200,000	1,500,000	1,000,000
Bluegrass, Ky.	Bus.	775,000	3,500,000	1,400,000	1,300,000	325,000
Meadow Fescue**	Lbs.	1,000,000	900,000	600,000	550,000	500,000
Orchard Grass	Bus.	205,000	410,000	140,000	260,000	165,000
Redtop**	Lbs.	7,500,000	18,000,000	16,000,000	7,500,000	6,000,000
Sudan Grass	Lbs.	23,000,000	50,000,000	12,000,000	20,000,000	13,000,000
Timothy*	Lbs.	78,300,000	92,200,000	63,300,000	40,900,000	8,500,000

\*Figures for these seeds subject to revision.  
\*\*Recleaned.

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starting page 50—for the leading Trade Marks and Brands used  
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SEED COMPANY**  
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MONTHLY CASH PRICES OF TIMOTHY SEED

The following table exhibits the monthly range of prices, per 100 lbs., for cash Timothy Seed in the Chicago market during the past 21 years:

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1914.....	5.40 5.55	5.30 5.50	5.00 5.50	5.00 5.40	5.00 5.50	5.00 5.75	5.50 6.75	5.80 6.50	5.50 6.50	5.40 5.60	5.30 5.90	5.90 7.85
1915.....	7.75 8.00	7.30 7.75	6.65 7.40	6.90 7.25	6.50 7.25	6.75 7.50	6.00 7.50	6.40 10.00	8.00 9.25	7.75 8.50	8.00 8.50	8.00 9.00
1916.....	8.35 8.80	8.40 8.80	8.50 9.00	8.50 8.50	8.50 9.25	8.75 9.25	8.25 8.75	5.25 8.50	5.00 5.25	5.00 5.35	5.25 5.75	5.45 5.75
1917.....	5.30 5.75	5.40 5.50	5.75 5.90	6.00 7.75	6.75 8.40	7.25 8.00	7.50 8.50	7.60 8.00	6.50 8.25	6.75 8.25	7.00 8.50	7.00 7.50
1918.....	7.15 8.00	7.25 7.50	7.00 7.50	7.00 7.75	7.15 7.75	7.00 8.50	8.50 9.00	8.95 10.00	9.85 11.00	10.50 12.00	10.00 12.50	11.00 12.15
1919.....	11.40 11.75	10.00 11.25	11.00 11.50	10.75 13.50	13.00 14.00	12.60 13.00	12.65 13.25	12.50 12.70	12.00 12.75	12.00 12.75	12.10 12.80	12.00 12.50
1920.....	13.50 15.50	13.75 15.40	13.00 14.65	12.00 13.50	11.50 12.75	11.50 12.75	12.50 12.75	10.00 11.40	9.50 9.75	5.00 7.25	5.00 6.75	5.50 7.00
1921.....	5.50 6.75	4.50 6.25	5.00 6.75	6.00 7.65	7.00 7.85	7.00 7.30	6.25 7.50	5.90 6.75	5.50 6.00	5.75 6.75	6.00 7.50	7.00 7.25
1922.....	7.00 8.00	7.25 7.75	7.00 7.75	7.00 7.25	7.00 7.00	6.00 6.25	5.00 6.25	6.00 6.25	6.00 7.00	6.50 7.50	7.00 7.50	7.00 7.75
1923.....	7.25 7.50	7.25 7.50	7.25 7.50	7.25 7.25	7.00 7.75	7.75 7.75	.... ....	.... ....	7.60 8.00	8.00 9.50	8.00 9.00	8.00 9.00
1924.....	8.50 10.25	8.75 10.25	8.50 10.00	8.75 9.00	8.25 8.75	8.75 8.75	8.75 8.75	6.00 7.50	4.75 6.65	4.75 6.00	4.85 6.35	5.50 6.65
1925.....	5.75 6.40	5.25 6.15	5.25 5.90	5.25 6.30	5.50 6.40	6.35 7.70	6.85 7.35	6.75 7.75	6.50 7.75	6.75 7.75	6.50 7.75	6.50 8.00
1926.....	6.50 8.10	6.40 7.65	6.05 7.20	6.00 7.00	6.00 7.00	6.00 7.00	6.00 7.50	5.00 7.50	5.00 6.10	5.00 5.75	4.75 5.15	5.00 5.25
1927.....	4.85 5.75	4.50 5.25	4.50 4.75	4.25 4.75	4.00 4.25	4.00 5.50	4.00 5.50	3.50 4.75	2.25 3.75	2.25 3.25	3.25 4.50	3.25 4.50
1928.....	3.25 4.25	3.00 4.25	3.00 3.75	3.00 4.25	3.30 4.25	3.30 4.45	3.35 4.45	3.35 4.50	3.50 5.60	4.75 6.00	4.50 6.00	5.00 6.25
1929.....	5.00 6.25	5.00 6.25	5.00 6.25	5.00 6.00	5.00 6.00	5.00 6.00	4.30 6.00	3.85 5.25	4.00 5.50	4.00 5.50	5.25 6.00	5.50 6.00
1930.....	5.50 6.00	4.50 6.00	3.50 6.00	4.50 7.50	6.50 8.50	6.50 8.00	5.25 7.00	5.00 7.00	5.50 8.50	6.50 8.75	8.00 9.25	8.00 9.00
1931.....	8.00 9.00	8.75 9.75	8.25 9.75	8.00 8.75	7.50 8.75	5.50 7.50	3.50 5.50	3.00 4.00	3.00 4.00	3.00 4.00	3.00 4.00	3.75 4.25
1932.....	3.50 4.25	3.15 3.75	3.00 3.25	2.75 3.25	2.90 3.00	2.50 3.00	2.25 2.50	2.15 2.75	2.25 2.50	2.25 2.50	2.25 2.50	2.10 2.50
1933.....	2.10 2.35	2.10 2.35	2.00 2.35	2.00 2.60	2.25 2.60	2.25 3.90	3.00 4.25	4.25 5.00	4.50 6.25	5.75 6.25	5.50 6.25	5.50 6.00
1934.....	6.50 7.00	6.75 7.50	7.25 7.50	6.00 6.90	6.00 7.75	7.50 9.50	9.25 11.50	11.00 18.00	16.50 19.00	16.50 17.50	16.50 17.75	... ...

NUMBER OF PLANTS TO AN ACRE

SET AT REGULAR DISTANCES APART

Distance apart	No. Plants	Distance apart	No. Plants	Distance apart	No. Plants
3 in. by 4 in.....	522,720	3 ft. by 3 ft.....	4,840	5 ft. by 5 ft.....	1,742
4 in. by 4 in.....	392,040	3½ ft. by 3½ ft.....	3,555	5½ ft. by 5½ ft.....	1,440
6 in. by 6 in.....	174,240	4 ft. by 1 ft.....	10,890	6 ft. by 6 ft.....	1,200
1 ft. by 1 ft.....	43,560	4 ft. by 2 ft.....	3,630	6½ ft. by 6½ ft.....	1,031
1½ ft. by 1½ ft.....	19,360	4 ft. by 4 ft.....	2,722	7 ft. by 7 ft.....	888
2 ft. by 1 ft.....	21,780	4½ ft. by 4½ ft.....	2,150	8 ft. by 8 ft.....	680
2 ft. by 2 ft.....	10,890	5 ft. by 1 ft.....	8,712	9 ft. by 9 ft.....	537
2½ ft. by 2½ ft.....	6,960	5 ft. by 2 ft.....	4,356	10 ft. by 10 ft.....	435
3 ft. by 1 ft.....	14,520	5 ft. by 3 ft.....	3,904	11 ft. by 11 ft.....	360
3 ft. by 2 ft.....	7,260	5 ft. by 4 ft.....	2,178	12 ft. by 12 ft.....	302

RULE—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill; which divided into the number of square feet (43,560), will give the number of plants to the acre.





## *Cosmos, Early Klondyke* **ORANGE FLARE**

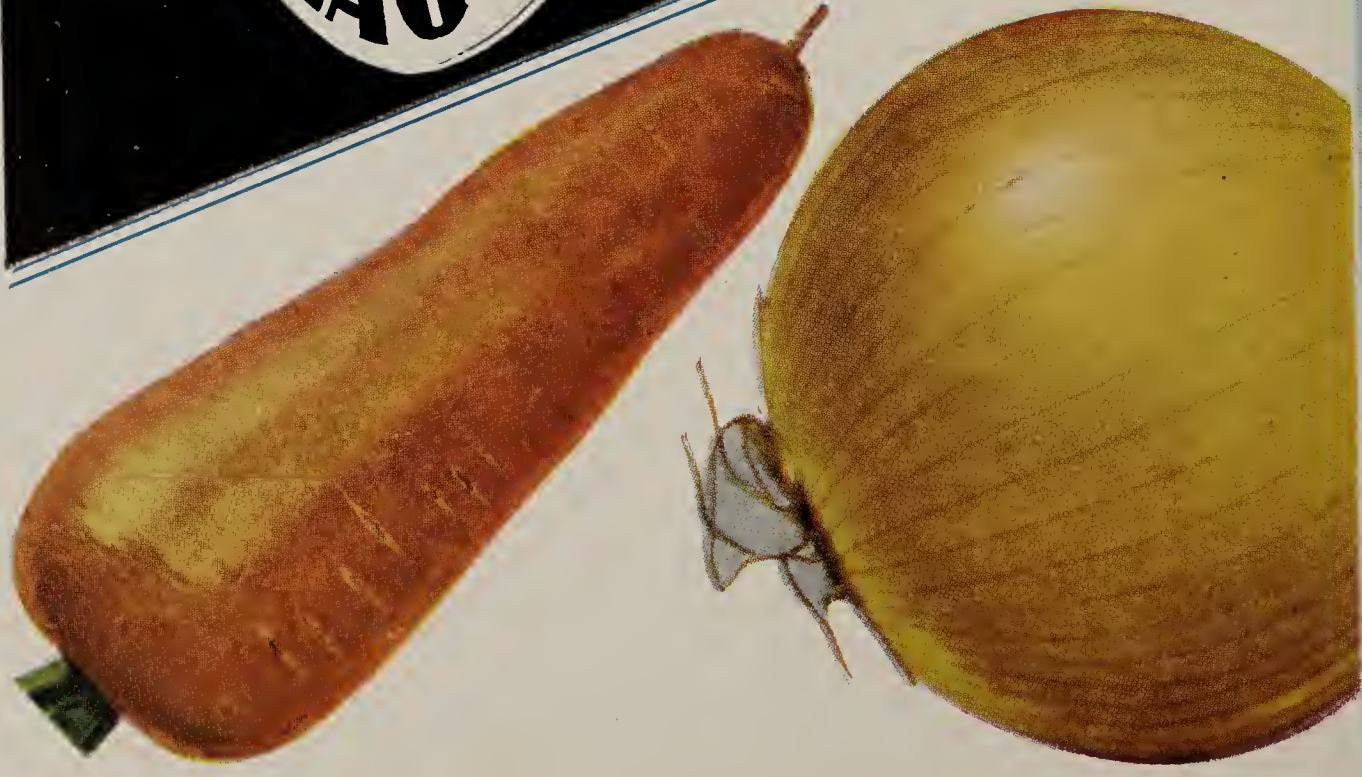
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CALIFORNIA**  
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## PRICES OCTOBER CLOVER SEED AT TOLEDO

## Low and High Prices per Bushel by Months

Crop of	March	April	May	June	July	Aug.	Sept.	Oct.
1918.....	19.70	18.00	18.00	12.80	13.10	16.30	19.05	22.55
	20.85	20.20	18.40	14.20	16.35	19.50	23.80	24.00
1919.....	17.00	17.15	19.75	21.50	26.20	29.50	28.15	30.00
	19.30	19.75	22.00	25.50	32.50	32.35	30.60	31.80
1920.....	23.00	22.00	23.40	23.50	20.15	18.20	14.60	12.90
	25.25	24.25	24.25	26.25	25.95	21.75	18.55	15.60
1921.....	9.00	8.85	9.50	10.35	11.35	11.65	11.40	12.30
	9.95	9.40	10.50	12.25	14.00	14.05	12.95	13.65
1922.....	11.00	11.10	11.05	10.80	10.67	8.97	9.70	11.05
	12.35	12.00	11.60	11.35	11.40	10.27	11.50	12.70
1923.....	11.20	11.45	11.70	11.00	10.90	11.85	13.10	14.30
	11.72	11.95	12.30	11.97	11.55	13.35	15.65	15.60
1924.....	11.92	11.75	11.85	12.00	12.35	12.50	13.90	17.30
	12.65	12.40	12.40	12.65	13.60	14.30	19.00	19.00
1925.....	13.00	13.00	13.05	14.50	14.55	14.75	14.75	16.75
	14.00	14.50	14.25	16.10	16.00	16.00	17.25	18.25
1926.....	15.65	15.65	16.50	19.25	19.65	19.95	20.75	21.00
	16.50	16.70	19.50	20.75	21.25	22.10	22.50	22.75
1927.....	16.50	16.45	16.00	16.50	16.60	17.00	15.00	15.70
	17.50	17.00	16.85	16.95	17.50	18.00	17.25	17.90
1928.....	15.00	16.25	17.30	17.75	18.65	17.30	18.00	18.30
	16.15	17.75	17.75	18.75	19.10	18.65	18.60	18.65
1929.....	.....	.....	.....	.....	.....	12.95	11.75	11.10
	.....	.....	.....	.....	.....	14.75	12.75	11.85
1930.....	11.35	12.00	12.60	12.60	13.60	14.35	14.75	15.00
	12.20	12.60	12.60	13.25	14.35	15.75	15.50	15.50
1931.....	12.25	14.25	14.25	13.75	13.50	9.00	7.50	7.50
	14.00	14.25	14.25	14.25	13.75	13.75	8.50	8.10
1932.....	.....	.....	.....	.....	.....	.....	5.50	5.60
	.....	.....	.....	.....	.....	.....	5.65	5.65
1933.....	.....	.....	6.50	7.50	8.00	7.25	6.15	6.90
	.....	.....	7.50	8.00	8.75	9.00	7.25	7.40
1934.....	No Oct. Quotations				Toledo Market Discontinued on July 11, 1934			

# **ALSIKE**

RED CLOVER

ALFALFA, CANADIAN VARIEGATED

SWEET CLOVER

CANADIAN BLUE GRASS

SAMPLES ON REQUEST—CARLOTS

“CANADA’S GREATEST SEED HOUSE”

**STEELE, BRIGGS SEED CO.**

TORONTO

Limited

CANADA



FORAGE PLANT SEEDS PERMITTED ENTRY UNDER  
FEDERAL SEED ACT

By Fiscal Years Ending June 30, 1928-1934, and by Countries Exporting  
(Reported by the U. S. Division of Seed Investigations, Washington, D. C.)

ALFALFA

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Argentina .....	.....	317,900	302,100	44,500	.....	(1)2,600	.....
Canada .....	728,300	154,000	2,300	177,900	352,700	2,600	24,500
France .....	.....	.....	32,600	11,000	.....	(1)3,000	.....
Germany .....	.....	(2)198,500	.....	.....	.....	.....	.....
Latvia .....	(3)53,900	.....	.....	.....	.....	.....	.....
Other countries..	100	(4)476,000	.....	.....	.....	(1)33,000	(1)22,000

ALSIKE CLOVER

	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	7,608,600	4,787,000	7,220,300	93,800	.....	.....	.....
Germany .....	.....	10,900	.....	.....	.....	.....	.....
Other countries..	.....	.....	.....	.....	.....	.....	.....

WINTER RAPE SEED

	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
China .....	30,100	.....	.....	.....	.....	.....	.....
France .....	.....	460,000	175,900	.....	21,800	33,100	.....
Germany .....	83,700	216,600	138,300	(5)489,000	214,700	120,400	33,700
Great Britain....	3,700	6,900	6,300	6,700	2,100	9,600	2,600
Hungary .....	.....	223,100	79,700	69,600	59,600	.....	58,600
Japan. ....	1,703,300	1,454,400	4,397,800	2,042,000	961,300	4,149,700	4,507,200
The Netherlands..	4,616,700	4,621,300	1,709,700	2,478,800	2,410,100	831,900	631,100
Poland .....	.....	.....	162,200	32,800	92,200	29,600	32,700
Other countries..	300	.....	10,900	.....	100	100	15,300

HAIRY VETCH

	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	6,100	19,200	.....	6,500	14,300	7,500	1,200
Czechoslovakia ..	42,900	240,100	507,600	64,500	228,500	548,000	225,300
Denmark .....	52,300	.....	.....	.....	78,200	5,400	10,900
Germany .....	1,351,200	(6)1,801,200	(7)713,400	(8)543,100	(9)548,500	(10)540,500	(11)207,300
Great Britain....	.....	800	.....	.....	.....	.....	(12)55,100
Hungary .....	945,700	1,226,100	1,074,300	540,000	1,043,900	647,100	1,975,500
Latvia .....	1,256,900	474,700	165,000	427,000	248,900	(13)1,041,700	(14)363,000
Lithuania .....	110,200	.....	.....	.....	32,800	41,600	.....
Poland .....	86,000	142,800	.....	.....	167,700	61,800	281,100
Sweden .....	43,900	159,000	22,800	47,100	2,600	.....	22,000
Other countries..	.....	.....	.....	.....	.....	.....	.....

PERENNIAL RYEGRASS

	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Denmark .....	20,000	21,500	6,000	500	2,300	7,100	5,600
Great Britain....	97,600	127,300	202,800	(16)295,400	(17)219,200	(18)248,700	(19)141,800
Ireland .....	624,000	886,900	696,200	523,500	373,200	206,100	302,200
New Zealand....	340,200	138,000	11,600	3,200	47,900	300	75,300
Other countries..	1,000	6,200	20,500	900	(20)2,900	600	(21)6,700

CRIMSON CLOVER

	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Czechoslovakia ...	21,500	132,400	162,500	.....	.....	.....	.....
France .....	725,600	2,632,700	581,500	1,242,200	54,600	5,500	.....
Germany .....	107,600	157,100	(22)681,800	(23)231,800	(24)285,900	.....	(23)21,800
Great Britain....	19,500	.....	.....	85,700	20,100	.....	.....
Hungary .....	471,900	472,500	1,673,000	1,519,200	1,470,600	673,300	1,921,200
Poland .....	.....	.....	.....	.....	.....	6,200	34,000

(1) American goods returned. (2) 197,500 lbs. of Turkestan origin; 1,000 lbs. American goods returned. (3) Of Turkestan origin. (4) 465,200 lbs. of Turkestan origin. (5) 11,000 lbs. of Hungarian origin. (6) 126,500 lbs. of Latvian origin. (7) 271,500 lbs. of Czechoslovakian origin; 187,300 lbs. of Latvian origin; 87,600 lbs. of Hungarian origin. (8) 356,800 lbs. of Hungarian origin; 46,800 lbs. of Czechoslovakian origin. (9) 60,500 lbs. of Hungarian origin; 43,800 lbs. of Latvian origin. (10) 142,600 lbs. of Lithuanian origin; 28,600 lbs. of Latvian origin; 10,900 lbs. of Czechoslovakian origin. (11) 71,500 lbs. of Hungarian origin; 33,000 lbs. of Czechoslovakian origin; 17,600 lbs. of Lithuanian origin. (12) Of German origin. (13) 76,500 lbs. of Lithuanian origin. (14) 77,000 lbs. of Lithuanian origin. (16) 51,600 lbs. of Irish origin. (17) 155,100 lbs. of Irish origin. (18) 214,700 lbs. of Irish origin. (19) 133,800 lbs. of Irish origin. (20) 2,200 lbs. of Australian origin; 700 lbs. from Holland. (21) Of Irish origin. (22) 589,900 lbs. of Hungarian origin; 36,100 lbs. of Czechoslovakian origin. (23) Of Hungarian origin. (24) 187,900 lbs. of Hungarian origin.



# FORAGE PLANT SEEDS PERMITTED ENTRY UNDER FEDERAL SEED ACT

(Continued from preceding page)

## ORCHARD GRASS

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Denmark .....	169,500	1,964,000	123,400	339,700	.....	19,000	5,000
Germany .....	3,000	376,100	191,700	2,200	1,100	.....	.....
The Netherlands..	.....	36,900	300	.....	.....	.....	.....
Other countries..	.....	100	3,000	100	.....	100	100

## RED CLOVER

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	3,300	183,700	300	.....	100	.....	.....
Czechoslovakia ...	(1)43,600	185,700	53,800	44,100	.....	.....	.....
France .....	462,300	3,623,000	471,800	2,630,800	.....	.....	.....
Germany .....	(2)656,700	(3)465,200	(4)358,000	.....	.....	.....	.....
Great Britain....	.....	(5)901,800	89,600	11,200	(6)30,800	.....	.....
The Netherlands..	200,000	109,300	44,100	.....	.....	.....	.....
Poland .....	1,872,300	1,524,300	953,000	119,100	.....	.....	.....
Other countries..	(8)1,402,600	(9)554,000	(8)183,700	100	(6)100	.....	(6)11,000

## CANADA BLUEGRASS

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	1,101,900	1,227,800	608,000	985,100	366,200	191,100	128,100

## SPRING VETCH

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	.....	600	.....	.....	500	.....	100
Germany .....	187,100	.....	358,100	286,700	.....	95,500	(10)30,600
Great Britain....	17,500	.....	.....	.....	.....	.....	.....
Latvia .....	19,800	.....	110,200	33,000	.....	.....	.....
The Netherlands..	63,000	.....	11,000	55,100	.....	.....	.....
Poland .....	220,300	.....	43,700	.....	.....	.....	87,800
Other countries..	54,800	100	(11)297,900	329,500	(12)201,600	.....	(13)599,900

(from Belgium)

## ITALIAN RYEGRASS

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Argentina .....	.....	.....	44,800	.....	.....	.....	.....
Denmark .....	72,000	42,500	73,100	39,800	18,200	14,000	6,000
France .....	21,800	.....	.....	.....	.....	.....	.....
Great Britain....	5,400	37,400	9,000	(14)67,600	10,400	(15)13,400	(16)4,500
Ireland .....	167,400	102,800	94,600	90,100	45,400	7,200	4,500
The Netherlands..	1,900	600	3,900	2,300	500	200	200
New Zealand....	187,200	115,300	13,600	.....	600	6,500	11,200
Other countries..	200	(17)1,400	(18)4,900	600	.....	(19)1,000	.....

## WHITE CLOVER

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Czechoslovakia ..	24,400	30,800	30,900	.....	(20)30,600	36,500	.....
Denmark .....	.....	26,400	.....	.....	.....	7,900	.....
France .....	.....	400	.....	.....	.....	.....	.....
Germany .....	629,400	(21)1,310,200	(22)1,261,900	378,600	(20)494,200	(20)696,700	(23)483,500
Great Britain....	(20)84,000	115,500	25,200	31,500	(20)23,900	(20)17,300	(24)16,700
The Netherlands..	.....	1,600	18,400	.....	.....	40,700	.....
New Zealand....	15,400	.....	200	6,800	6,500	.....	.....
Poland .....	977,000	924,200	941,600	350,500	335,100	1,077,100	448,800
Other countries..	47,800	800	.....	300	2,200	66,700	13,200

## ALL OTHER FORAGE CROP SEEDS

COUNTRY	1928 Pounds	1929 Pounds	1930 Pounds	1931 Pounds	1932 Pounds	1933 Pounds	1934 Pounds
Canada .....	(25)94,600	368,900	8,500	4,300	200	1,600	40,300
Denmark .....	100	700	2,000	.....	200	100	.....
Germany .....	.....	2,500	(26)15,100	1,400	16,300	100	.....
Other countries..	200	2,500	52,400	14,900	2,900	1,700	(28)281,100

(1) 10,900 lbs. of Polish origin. (2) Of Polish, Hungarian and Roumanian origin. (3) 222,000 lbs. of European Russian origin; 226,600 lbs. of Polish origin; 14,400 lbs. of Roumanian origin; 2,200 lbs. of French origin. (4) 300,800 lbs. of Polish origin. (5) 43,900 lbs. of European Russian origin; 51,200 lbs. of American goods returned. (6) American goods returned. (8) Of European Russian origin. (9) 65,100 lbs. from Hungary; 488,900 lbs. of European Russian origin. (10) 21,800 lbs. of European Russian origin. (11) 250,400 lbs. from Estonia (of European Russian origin); 43,000 lbs. from Hungary; 4,400 lbs. from Sweden; 100 lbs. from Australia. (12) 146,500 lbs. from Belgium; 55,000 lbs. from European Russia; 100 lbs. from Ireland. (13) 252,100 lbs. from Belgium; 343,300 lbs. from Hungary; 4,500 lbs. from Sweden. (14) 4,400 lbs. of Irish origin. (15) 13,200 lbs. of Irish origin. (16) Of Irish origin. (17) 1,000 lbs. of Dutch origin. (18) 4,500 lbs. from Germany (of Irish origin). (19) Of Danish origin. (20) Partly of Polish origin. (21) 111,700 lbs. of Polish origin; 12,000 lbs. of Czechoslovakian origin. (22) 26,100 lbs. of Polish origin; 11,000 lbs. of Czechoslovakian origin. (23) 230,300 lbs. of Polish origin; 2,300 lbs. of Dutch origin. (24) 6,500 lbs. of Polish origin; 4,500 lbs. of Hungarian origin. (25) 21,400 lbs. American goods returned (foxtail millet seed). (26) Of Polish origin. (28) Of this, 269,700 lbs. were Hungarian vetch seed.



# Tariff Rates Now in Effect

Approved by U. S. Congress, June 17, 1930

*The following paragraphs from the Tariff Act of 1930 pertain to  
Seeds, Bulbs and Nursery Stock*

**Par. 722. Barley**, hulled or unhulled, 20 cents per bushel of forty-eight pounds; barley malt, 40 cents per one hundred pounds; pearl barley, patent barley and barley flour, 2 cents per pound.

**Par. 723. Buckwheat**, hulled or unhulled, 25 cents per one hundred pounds; buckwheat flour and grits or groats, one-half of one cent per pound.

**Par. 724. Corn** or maize, including cracked corn, 25 cents per bushel of fifty-six pounds; corn grits, meal, and flour, and similar products, 50 cents per one hundred pounds.

**Par. 726. Oats**, hulled or unhulled, 16 cents per bushel of thirty-two pounds; unhulled ground oats, 45 cents per one hundred pounds; oatmeal, rolled oats, oat grits, and similar oat products, 80 cents per one hundred pounds.

**Par. 727. Paddy or rough rice**, 1½ cents per pound; brown rice (hulls removed, all or in part), 1½ cents per pound; milled rice (bran removed, all or in part), 2½ cents per pound; broken rice, which will pass readily through a metal sieve perforated with round holes five and one-half sixty-fourths of one inch in diameter, and rice meal, flour, polish, and bran, five-eighths of 1 cent per pound.

**Par. 728. Rye**, 15 cents per bushel of fifty-six pounds; rye malt, 40 cents per one hundred pounds; rye flour and meal, 45 cents per one hundred pounds.

**Par. 729. Wheat**, 42 cents per bushel of sixty pounds; wheat, unfit for human consumption, 10 per centum ad valorem; wheat flour, semolina, crushed or cracked wheat, and similar wheat products not specially provided for, \$1.04 per one hundred pounds.

## Bulbs

**Par. 753. Tulip bulbs**, \$6 per thousand; hyacinth bulbs, \$4 per thousand; lily bulbs, \$6 per thousand; narcissus bulbs, \$6 per thousand; crocus corms, \$2 per thousand; lily of the valley pips, \$6 per thousand; all other bulbs, roots, rootstocks, clumps, corms, tubers and herbaceous perennials, imported for horticultural purposes, 30 per centum ad valorem.

## Nursery Stock

**Par. 754. Seedlings** and cuttings of Manetti, multiflora, briar, rugosa, and other rose stock, all the foregoing not more than three years old, \$2 per thousand; rose plants, budded, grafted, or grown on their own roots, 4 cents each; cuttings, seedlings, and grafted or budded plants of other deciduous or evergreen ornamental trees, shrubs, or vines, and all nursery or greenhouse stock, not specially provided for, 25 per centum ad valorem.

**Par. 755. Seedlings**, layers, and cuttings of apple, cherry, pear, plum, quince, and other fruit stocks, \$2 per thousand; grafted or budded fruit trees, cuttings and seedlings of grapes, currants, gooseberries, or other fruit vines, plants or bushes, 25 per centum ad valorem.

**Par. 762. Oil-bearing** seeds and materials: Castor beans, one-half of 1 cent per pound; flaxseed, 65 cents per bushel of fifty-six pounds; poppy seed, 32 cents per one hundred pounds; sunflower seed, 2 cents per pound; apricot

and peach kernels, 3 cents per pound; soy beans, 2 cents per pound; cottonseed, one-third of 1 cent per pound.

## Farm Seeds

**Par. 763. Grass seeds** and other forage crop seeds: Alfalfa, 8 cents per pound; alsike clover, 8 cents per pound; crimson clover, 2 cents per pound; red clover, 8 cents per pound; white and ladino clover, 6 cents per pound; sweet clover, 4 cents per pound; clover, not specially provided for, 3 cents per pound; millet, 1 cent per pound; orchard grass, 5 cents per pound; rye grass, 3 cents per pound; timothy, 2 cents per pound; hairy vetch, 3 cents per pound; other vetch, 1½ cents per pound; bent-grass (genus agrostis), 40 cents per pound; bluegrass, 5 cents per pound; tall oat, 5 cents per pound; all other grass and forage crop seeds not specially provided for, 2 cents per pound: "Provided"—That no allowance shall be made for dirt or other impurities in seed of any kind.

## Garden Seeds

**Par. 764. Other** garden and field seeds: Beet (except sugar beet), 4 cents per pound; cabbage, 12 cents per pound; canary, 1 cent per pound; carrot, 4 cents per pound; cauliflower, 25 cents per pound; celery, 2 cents per pound; kale, 6 cents per pound; kohlrabi, 8 cents per pound; mangelwurz, 4 cents per pound; mushroom spawn, 1 cent per pound; onion, 15 cents per pound; parsley, 2 cents per pound; parsnip, 4 cents per pound; pepper, 15 cents per pound; radish, 6 cents per pound; spinach, 1 cent per pound; tree and shrub, 8 cents per pound; turnip, 5 cents per pound; rutabaga, 5 cents per pound; flower, 6 cents per pound; all other garden and field seeds not specially provided for, 6 cents per pound: "Provided"—That the provisions for seeds in this schedule shall include such seeds whether used for planting or for other purposes.

**Onion Sets**—2½ cents per pound.

## Beans and Peas

**Par. 765. Beans**, not specially provided for, and black-eye cow-peas: Green or unripe, 3½ cents per pound; dried, 3 cents per pound; in brine, 3 cents per pound; prepared or preserved in any manner, 3 cents per pound on the entire contents of the container.

**Par. 769. Peas** and chickpeas or garbanzos: Green or unripe, 3 cents per pound in the case of peas, and, in the case of chickpeas or garbanzos, 2 cents per pound; dried, 1¾ cents per pound; split, 2½ cents per pound; prepared or preserved in any manner, 2 cents per pound on the entire contents of the container.

**Par. 1727. Oil-bearing** seeds and nuts: Copra, hempseed, kapok seed, palm nuts, palm-nut kernels, tung nuts, rapeseed, rubber seed, perilla and sesame seed; seeds and nuts, not specially provided for, when the oils derived therefrom are free of duty. (See following note.)

**Note:** In the opinion of the American Seed Trade Association counsel, Curtis Nye Smith, Esq., seedsmen should declare hempseed and all varieties of rapeseed under this Par. 1727, free of duty, and not under Pars. 763 or 764.



**ROSS SEED CO.**

INCORPORATED

LOUISVILLE, KY.

Established 1895

EXPORTERS - IMPORTERS  
and JOBBERS of

ORCHARD GRASS

BLUEGRASS

REDTOP

CLOVERS

KOREAN (Lespedeza)

TIMOTHY

SOYBEANS

COWPEAS, ETC.

Car lots or less

**ROSS SEED CO.**

INCORPORATED

15th and Lytle

Louisville, Ky.

**WE *Specialize* IN**

ALFALFA

SWEET CLOVER

BLUE GRASS

MEADOW FESCUE

ORCHARD GRASS

SUDAN

MILLET

AND CANE

*Rudy-Patrick*  
**SEED COMPANY**  
KANSAS CITY, MISSOURI

• SINCE 1873

**BRENT'S PREMIUM SEEDS**

FIELD SEEDS • GARDEN SEEDS • ONION SETS

**THE C. S. BRENT SEED CO.**

INCORPORATED

LEXINGTON

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KENTUCKY

**DAVENPORT SEED CO.**

Davenport, Iowa

Headquarters IOWA Grown TIMOTHY SEED

SOY BEANS - RED CLOVER - SWEET CLOVER

ALFALFA - KOREAN and HARBIN LESPEDEZA

Carlots a Specialty

Wholesale Field and Grass Seeds



EXPORTS OF CLOVER SEED  
(ALL KINDS)  
Years Ending June 30

Year	Pounds
1910	6,977,685
1911	4,359,167
1912	1,874,682
1913	5,407,594
1914	4,640,852
1915	9,750,064
1916	7,116,220
1917	5,886,893
1918	9,439,314
1919	7,770,582
1920	5,061,792
1921	5,419,838
1922	4,007,233
1923	4,331,153
1924	784,471
1925	1,862,925
1926	973,109
1927	1,992,906
1928	1,838,783
1929	615,045
1930	1,439,547
1931	1,057,461
1932	723,018
1933	367,902
1934	3,568,168

EXPORTS OF TIMOTHY SEED  
Years Ending June 30

Year	Pounds
1910	18,044,488
1911	7,893,121
1912	11,111,807
1913	3,542,705
1914	13,689,707
1915	17,646,273
1916	12,428,140
1917	15,139,913
1918	8,564,384
1919	11,673,029
1920	15,304,646
1921	14,989,518
1922	20,150,357
1923	20,131,903
1924	15,501,856
1925	16,457,687
1926	9,942,494
1927	14,060,447
1928	17,677,670
1929	8,631,395
1930	12,123,110
1931	13,594,818
1932	13,948,236
1933	5,481,262
1934	5,378,920

EXPORTS OF RED CLOVER  
SEED

By Calendar Years

*Prepared from data obtained by the Bureau  
of Foreign and Domestic Commerce,  
U. S. Department of Commerce*

Year	Pounds
1923	800,550
1924	516,225
1925	415,921
1926	583,980
1927	1,279,867
1928	455,738
1929	523,535
1930	535,472
1931	670,304
1932	297,899
1933	3,025,438
1934*	449,098

\* Six months ended June 30, 1934.

EXPORTS OF ALFALFA SEED

By Calendar Years

*Prepared from data obtained by the Bureau of  
Foreign and Domestic Commerce, U. S.  
Department of Commerce*

Year	Pounds
1923	399,346
1924	363,269
1925	1,332,992
1926	741,516
1927	1,393,474
1928	781,920
1929	825,830
1930	832,965
1931	218,044
1932	1,564,641
1933	1,198,796
1934*	575,846

\* Six months ended June 30, 1934.

**WM. G. SCARLETT & CO.**

**OFFICE & SEED CLEANING PLANT**

**729-743 E. Pratt St.**

**BALTIMORE, MD., U. S. A.**

**Cable Address, "Scarlett, Baltimore"**

**GRASS & FIELD SEEDS**  
**BIRD SEEDS                      LAWN SEEDS**



**KENTUCKY BLUE GRASS**

WESTERN GROWN

**KANSAS ALFALFA**

VERIFIED ORIGIN

**T. LEE ADAMS SEED CO.**

Since 1882

KANSAS CITY, MO.

*Shippers of*  
**SWEET CLOVER**  
**BROMUS**  
**ALFALFA**  
**SEED GRAIN**  
**POTATOES**



**INTERSTATE**  
**SEED & GRAIN CO.**  
**FARGO, N. D.**

*We specialize in the following*

**OREGON GROWN SEEDS**

Hairy Vetch

Common Vetch

Hungarian Vetch

Austrian Peas

Ryegrass

Mesquite

Red Clover

Alsike Clover

Write for prices on prompt and future shipment  
*Wholesale only*

**ALBANY SEED COMPANY**

**ALBANY**

**W. A. Vollstedt, Mgr.**

**OREGON**

**Keep your sales message consistently before  
the retailers, wholesalers and growers of the  
industry, through Seed World.**

*— It Pays —*

**SEED WORLD**

**325 W. Huron St.**

**Chicago**



## SEED VERIFICATION SERVICE HAS BIGGEST YEAR

*(Prepared by U. S. Bureau of Agricultural Economics)*

**M**ORE ALFALFA SEED was verified as to origin during the Seed Verification Service year which ended July 31, 1934, than in any year since the inception of the Service in 1927. This is significant because the 1933 production of alfalfa seed was below average and the fees were increased from 2 cents per 100 pounds to 3 cents. The growth of the Service indicates an increasing popularity for verified-origin seed.

During the past year the new rules, regulations, and instructions governing origin verification of seed were in effect, and in the main they were found to be satisfactory. They incorporated three important changes, namely, the limiting of the origin of alfalfa seed to three states or less, the revision of the old form of shipper's declaration, and the raising of the fees. These changes have been fruitful of results.

Those who have called attention to the undesirability of multiple origins of alfalfa seed for the last few years will be glad to learn that this situation has almost been entirely corrected by the regulation with respect to the number of states of origin. During the last (verification) year 89.86% of the verified-origin alfalfa seed offered for sale carried certificates showing the origin to be a single state, 6.95% indicated two states, 2.94% indicated three states, and 0.25% indicated four or more states. Practically all the lots the origins of which were four or more states represented seed carried over from the previous year, when it was permissible to prepare such blends. Last year, as may be seen from the foregoing figures, approximately 97% of all the verified-origin alfalfa seed sold was of either one state or two states of origin.

Kansas again led all other states as the principal source (origin) of verified-origin alfalfa seed that was offered for sale during the 1933-34 season. It was, however, closely pressed by Montana, these two states accounting for 46% of all the alfalfa seed verified. Other states in the order of the quantities verified are: Nebraska, Idaho, South Dakota, Utah, Michigan, Minnesota, and Oklahoma. Besides the states mentioned, there are 13 other states that produced seed that was verified as to origin. In this connection, it might be well to mention that seed from any state of production is eligible for verification of origin, but that the bulk of the seed verified comes from northern and central-producing districts.

The raising of the fees from 2 cents to 3 cents per 100 pounds put the Service on a self-supporting basis. During the last season 2,005 inspection certificates were issued, the fees for which amounted to \$18,293.28, compared with \$8,907.86 the year be-

fore and \$8,136.07 two years ago. Approximately 44,000,000 pounds of alfalfa and 17,000,000 pounds of red clover seed were verified during the 1933-34 season, compared with 25,000,000 and 19,000,000 pounds, respectively, during the preceding season.

The quality of the verified-origin seed sold in 1933-34 was, as in previous years, better than that of non-verified origin seed. Approximately 80% of the alfalfa and nearly 98% of the red clover samples collected were of good to very good quality, and less than 3% of the alfalfa and only  $\frac{1}{3}$  of 1% of the red clover samples were below fair in quality. This indicates that at this time there is little or no need of making further restriction regarding the quality of verified-origin seed than that which has been in effect almost since the Service began, namely, that tag certificates should not accompany shipments of screenings or other low-grade seed.

The revision of the old form of shipper's declaration made that form more understandable by the hundreds of country shippers who had occasion to use it. It has been found necessary, however, to make additional restrictions relative to the acceptability of these declarations. Up to the present season (1934-35) declarations of origins were accepted from general seed dealers not enrolled in the Service but who were situated in a surplus alfalfa seed producing district and were keeping proper records and otherwise meeting the requirements of the Service. At the present time, in addition to the former requirements, these dealers are required to show on tags the state or states of origin and the lot number or other identification of every lot of alfalfa seed shipped by them if they wish to continue to furnish declarations of origin. This will tend to decrease the quantity handled of origins undesirable for sowing in sections where these dealer-shippers are situated and make for fairer competition between them and verified-origin seed dealers who are required to accompany all shipments of alfalfa seed, except state-certified and sealed seed as well as imported and low-grade seed, with certificates showing the lot identification and origin.

The enrollment for the 1934-35 season is even greater than that of last season, when there were 68 verified-origin seed dealers. Only one of those dealers has withdrawn from the Service, and his place has been taken by 19 others. The 86 dealers, situated in 24 states, now enrolled are expected to handle more than 90% of the alfalfa seed that enters commerce. Up to the end of October, much more alfalfa seed was verified as to origin than during the corresponding period in any previous year.



# CHARACTERISTIC ADAPTATIONS OF THE MORE IMPORTANT TURF GRASSES

(Reprinted from *Golfdom and Rutgers University Greenkeeping Short Course*)

Name of Grass Scientific	Common	Time Required to Produce Good Turf	Adaptation of			Cold or Hot Weather	Uses	Remarks
			Wet or Dry Soils	Sandy or Clayey Soils	Acid Soils			
Agrostis alba or Agrostis palustris or Agrostis stolonifera major	Redtop harsh white southern, English bent or herd grass	One season	Adapted to wet and tolerant of dry soils	Adapted to clayey soils	Tolerant	Resistant to cold and fairly tolerant of heat	Fairways, greens and lawns	Sod forming habit of growth. Lasts about 1 year under close mowing. Used chiefly as a temporary grass.
Agrostis tenuis or Agrostis capillaris or Agrostis vulgaris	Rhode Island bent, Colonial bent, "Brown top," "Golfalawn," "Astoria bent" and "P. E. I. bent"	One season	Adapted to both moist and dry soils	Adapted to clayey and sandy soils if well drained	Tolerant	Resistant to cold and fairly tolerant of heat	Greens, fairways and lawns	Probably used more extensively than any other seeded bent. German mixed bent contains about 75% of it. Sod forming habit of growth.
Agrostis Stolonifera Maritima	Creeping bent, Seaside bent and "Florin"	One season from seed; 2 months from stolons	Adapted to moist soils	Adapted to tolerant of sandy soils	Very tolerant	Resistant to cold but not hot weather	Greens, lawns and fairways	German mixed bent contains about 2% of it. Seaside bent also called Agrostis maritima. Sod forming habit of growth.
Agrostis Canina	Velvet, dog brown bent	One season	Adapted to moist soils	Adapted to clayey soils	Very tolerant	Resistant to cold but not hot weather	Greens and lawns	Adapted to about same region as Kentucky blue grass. German mixed bent contains about 15% of it. Sod forming habit of growth.
Poa pratensis	Kentucky blue	Two seasons	Adapted to moist soils	Adapted to clayey soils	Tolerant if soil is rich and well drained	Resistant to cold but not hot weather	Fairways and lawns	Requires fertile soils and responds to lime treatments. Sod forming habit of growth. Will not stand close mowing.
Poa compressa	Canada blue	Two seasons	Tolerant of dry soils	Adapted to clayey soils		Resistant to cold and tolerant of hot weather	Fairways and roughs	Use only when soil is thin and poor. Does well on rocky or gravelly soils. Not as good as Kentucky blue or redtop on good soils.
Poa trivialis	Rough-stalk meadow grass or bird grass	Two seasons	Adapted to moist soils	Adapted to clayey soils	Tolerant if soil is rich and well drained	Resistant to cold but not hot weather	Fairways and lawns	Best of all grasses for shady lawns. Sod forming habit of growth.
Poa annua	Annual blue grass, spear grass or meadow grass	One season	Adapted to moist soils	Adapted to clayey soils	Tolerant	Resistant to cold but not hot weather	Greens, fairways and lawns	Sod forming habit of growth.
Festuca rubra	Red fescue	One season	Adapted to moist and tolerant of dry soils	Adapted to sandy loams and tolerant of clayey soils	Tolerant	Resistant to cold and fairly tolerant of heat	Greens, fairways and lawns	2 commercial var. of red fescue are creeping r'fescue (F. rubra var. genuina) and New Zealand or Chewings' fescue (F. rubra var. fallax). One of the best grasses for shady lawns, sod. F. habit of growth.
Festuca ovina	Sheep's fescue		Very tolerant of dry soils	Adapted to sandy soils	Tolerant	Resistant to cold and tolerant of heat	Rough	Especially adapted to soils which are thin, sandy and rocky. Bunch forming habit of growth.
Festuca duriuscula	Hard Fescue		Very tolerant of dry soils	Adapted to sandy soils	Tolerant	Resistant to cold and tolerant of heat	Rough	Variety of sheep's fescue. Bunch forming habit of growth.
Festuca caillata or Festuca tenuifolia	Fine-leaved fescue		Tolerant of dry soils	Adapted to sandy soils	Tolerant	Resistant to cold and tolerant of heat	Lawns	Variety of sheep's fescue. Thrives well in shady lawns. Bunch forming habit of growth.



## SEEDSMEN'S LEGAL QUESTIONS ANSWERED

*During the past seventeen years Seed World has conducted a Legal Department, in which subscribers' questions have been answered and current court decisions of interest to the seed trade have been discussed. Believing that the questions that have arisen most frequently in the past are likely to continue to be encountered by the seed trade we have had our attorney, Herbert Bebb, prepare the following selection and condensation from the Legal Department material.*

### Catalog Delay

*Question: We figure that we have lost some sales due to failure of our printer to deliver our catalogs on the agreed date. Are we entitled to recover such lost profits?*

**ANSWER:** In *Drumm Seed Co. vs. McFarland*, 30 S. W. 93, the Court held that before such lost profits can be allowed "the amount of loss thus sustained must be shown with reasonable accuracy and the instances in which it would be possible to make this proof must necessarily be exceptional." In view of the difficulty in proving such damages we advise the inclusion of a liquidated damages clause in important printing contracts.

### Commission Seeds

*Question: What protection does the wholesaler have against a bulk sale of commission seed stand and packets or against their being levied upon by a judgment credit of the retail dealer who has them on consignment?*

**ANSWER:** The consignee of a stand of commission seeds is legally a "Bailee". In our opinion his authority to sell the packets separately at retail does not amount to a representation by the wholesaler that he has authority to sell or pledge the entire stand. See *Romeo vs. Martucci*, 72 Con. 504.

### Corporate License

*Question: In connection with our commission seed business should our corporation be licensed to do business in those states in which we will place our stands or boxes?*

**ANSWER:** By the weight of authority sales by a consignee of goods received from a consignor out of the state are regarded as Interstate Commerce and hence a corporate consignor need not be licensed to do business in the state in which the sales are made. See *Butler Brothers vs. U. S. Rubber Company*, 156 Federal 1.

### Crop Failure

*Question: Does a crop failure excuse us from furnishing strawberry plants which we have contracted to furnish at this season?*

**ANSWER:** No. If you unconditionally undertook to furnish a certain number of plants without stating where they were coming from or otherwise connecting your liability with the supply then you would remain liable despite the crop failure.

### Damages

*Question: What is the proper measure of damages for loss of crop because of faulty seed?*

**ANSWER:** Where a crop is produced upon which expected profits can be estimated the proper measure of damages is the difference in value between the crop grown and the crop that would have been grown if the seed had been according to contract. If no crop is produced then the measure of damages includes (1) the purchase price; (2) the rental value of the land; (3) the labor in preparing, sowing, cultivating; (4) hauling the seed from the place of purchase. See *Lundquist vs. Jennison*, 214 Pac. 67.

### Disclaimer, Custom

*Question: Where there is no non-warranty clause in the written contract, can the seedsman defend on the theory that the parties must be understood to have dealt with reference to the general non-warranty custom?*

**ANSWER:** Yes. The tendency of recent decisions, particularly in the west, has been strongly in the direction of recognizing the non-warranty custom, thus in effect incorporating the disclaimer clause into seed contracts. The most recent decision along this line was *Hoover vs. Utah Nursery Company*, 7 Pac. (2nd) 270, in which earlier authorities are discussed, particularly the exhaustive opinion in *Miller vs. Germain Seed & Plant Company*, 193 Cal. 162. Other cases are cited in 37 LRANS 79; An. Cas. 1918 B71; 16 ALR. 859, which will be found in any large law library. Most of the cases giving effect to the disclaimer custom have been from west of the Mississippi River but in 1931 New York was added to the list by an important decision in *Lumbrazo vs. Woodruff*, 256 N. Y. 92. Some of the refusals to give effect to the disclaimer custom may be attributed to failure of the seedsman and his attorneys to make sufficient proof as to the existence of the custom. Such a case will be found in *National Seed Company vs. Leavell*, 259 S. W. 1035. In *American Warehouse Company vs. Ray* (1912 Texas Civil Appeals), 150 S. W. 763, it was held that the disclaimer custom could have no effect unless it was to show that the plaintiff "had knowledge of such custom or contracted with it in view."

### Disclaimer, Location

*Question: Where should the disclaimer be placed?*

**ANSWER:** We advise placing the disclaimer on your letterheads and on all forms on which contracts may be drawn in such a location that it will read as a part of the contract. Some cases hold that obscurely printed conditions above the salutation upon a letterhead will not be read into a contract written thereon. One such case is *Sturtevant Co. vs. Fireproof Co.*, 216 N. Y. 199. On the other hand, it was held in *Poel vs. Brunswick Co.*, 216 N. Y. 310, that such printed additions, if sufficiently prominent, will be taken as part of the contract. *Rodesch vs. Kirkpatrick Coal Company*, 41 Fed. (2nd) 518, is a similar case.

Placing the disclaimer on tags and invoices is not alone enough since on most sales the contract has been closed before these papers come to the buyer's attention. See *Edgar vs. Breck*, 172 Mass. 581, and *Werd vs. Valker*, 176 N. W. 129.

### Disclaimer, Relation to Pure Seed Law

*Question: Is it permissible to put the standard disclaimer on the tag required by the uniform Pure Seed Law?*

**ANSWER:** We understand that some state officials have taken the position that such use of the disclaimer is inconsistent with the spirit of the requirement that certain information be placed on the tag. In *Mangelsdorf Seed Company vs. Busby* (1926 Okla.), 247 Pac. 410, the Court held that the seed company "had a clear right to meet this issue of implied warranty by proof tendered of an express non-warranty." Although the presence of the disclaimer on a tag was not involved, the case did arise



- The **Cost** of the Seed is the smallest item in the production of a crop.
- The **Best Seed** is the **Cheapest** in the end.
- The **Quality** of **RICE'S SEEDS** has been an accepted standard of value in the seed trade for over 100 years.



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- Wholesale Growers of Garden Seeds.
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Egg Plant « » Squash  
Pumpkin  
Muskmelon « » Watermelon

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under the Pure Seed Law and if the disclaimer can be proved when used separately, we see no legal reason why it should not appear on the tag provided it is so used as not to obscure the statutory data.

### Disclaimer, on Retail Sales

**Question:** *If a retailer sells over the counter seeds in packages bearing a wholesaler's disclaimer is the retailer protected by such disclaimer?*

**ANSWER:** No. The retailer in such case would not be protected by the express disclaimer although he might defend on proof of a general custom not to warrant. See *Jolly vs. Blackwell*, 211 Pac. 748.

Authorities as to the liability of the producer to the ultimate consumer who purchased from a middleman are cited and discussed in 39 A. L. R. 1000 and in 17 A. L. R. 672. The editor points out that an early case permitting the sub-purchaser to enforce warranties against the producer has been repudiated and that unless the facts involve a tort liability the sub-purchaser must look only to the retailer with whom he dealt.

### Disclaimer, Standard Wording

**Question:** *What is the official wording of the Seed Trade Disclaimer Clause?*

**ANSWER:** "The ..... Company gives no warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, or plants it sells, and will not be responsible for the crop."

### Disclaimer, Variations in Wording

**Question:** *We feel that the wording of the standard disclaimer is abrupt and harsh. We contemplate substituting a statement emphasizing the care that we take but pointing out that we have no control over conditions of cultivation. Would you approve of such changes?*

**ANSWER:** While we sympathize with your reluctance to employ wording which emphasizes only the negative aspects of your engagement, we nevertheless advise sticking to the standard wording. There is danger that you might fail to cover the entire ground or that your new wording might involve ambiguities that would not occur to you. More important than this is the point that the use of uniform wording by the entire trade is an advantage, first, to the trade since each seedsman using the clause is strengthening the custom theory on which many cases are being favorably decided and, second, to the individual since it is to the interest of each seedsman to bring himself squarely within the protection of this uniform custom.

### General Statement of Law

**Question:** *Where may I read a general introductory statement of law applicable to warranties of seeds?*

**ANSWER:** You will find such a statement in the introduction to the annotation to *Johnson vs. Foley Company*, in 16 A. L. R. 859. We may summarize a part of that statement as follows. Most seed contracts are sufficiently descriptive to indicate that the subject of sale is to be used for planting. This gives rise to an obligation which some courts call an "express warranty," other an "implied warranty," and still others a "condition". Since this obligation of the seller survives acceptance at least as to defects which inspection would not disclose, the distinction is often disregarded. The fact that the buyer cannot determine by inspection whether the articles tendered by

the seller comply with the contract is the reason for the exceptional rule applied to sale of seeds that in absence of an express disclaimer a warranty will be implied.

### Growers Contract

**Question:** *Can you give us a good form for a contract between a seedsman and a grower?*

**ANSWER:** The form used by the Ferry-Morse Seed Company has stood the test of successful litigation in *Ferry vs. Forquer*, 202 Pac. 193, and *Ferry vs. Smith*, 209 Pac. 1066. That form is as follows:

..... Seed Co. .... P.O. .... State  
..... 19..

I ..... agree, on the terms and conditions stated below, to raise for you, on lands of suitable quality and condition, located in Section ..... Township of ..... County of ..... and State of ..... and to deliver to you at ..... the following seeds: .....

I agree properly to prepare and plant such lands with Stock Seed to be furnished by you at .....; properly to cultivate and care for the crop; to harvest, cure, separate and clean, as well as possible with ordinary farm machinery, its entire seed product, in such manner as to secure the greatest possible return of seeds suitable for Seedsman's use; and to sack and deliver all the seed to you at ....., as soon as the seed can be put in suitable condition, and before November 30, 19...., without wasting, feeding, selling, reserving or allowing any portion of the crop or seed furnished to pass from my possession except as delivered to you. You are to pay all freight charges on stock seed, crop and on any bags you send me. The stock seed and seed crop produced from it is, and shall remain your property except as otherwise stated in this contract.

In order to prevent hybridization and to keep the crop pure, I agree that during the life of this contract I will not grow Seeds of the same species for any other person, and as far as I am able to prevent it, there shall be no other plants of the same species grown within ten rods of this crop. I will take at all times every reasonable precaution to keep the crop pure and to prevent seed of any chance plants of a different variety or of a stock of the same variety different from that sent me by you, becoming mixed with seeds grown under this agreement. You or your agents may at any time enter the field and, at your own expense, make such examination, selections or rejections as you or they deem desirable for the betterment of the crop for seed purposes, and you or they shall not be liable for necessary damage, if any, to my crop resulting from such work.

You are carefully to weigh and test the crop upon its delivery. Any remilling is to be done by you at your expense. You may refuse to accept the crop if less than eighty-five per cent (85 per cent) of the seeds are vital, or if in your judgment the crop is in any other respect unfit for Seedsman's use and cannot be made fit without an unreasonable amount of cleaning or hand picking. In case of dispute as to vitality, it is agreed that a sample of the seeds may be submitted to the United States Department of Agriculture for testing, and the report of the Department of Agriculture on the sample submitted shall be final and binding on both of us. The sample shall be taken from the seeds as they stand in your warehouse, by drawing a sample from each sack, then thoroughly mixing the same, and taking a sample from the mixture, which shall be sent by the ordinary course of mail or otherwise to the Department of Agriculture at Washington, D. C. In case you refuse to accept the crop, its title shall vest in me and in such event or in case of loss of stock seed through crop failure or otherwise I agree to reimburse you immediately for stock seed and bags furnished, and for all freight charges paid by you on any rejected crop. If, within 60 days after you mail me notice of refusal to accept the seeds, you do not receive directions from me as to their disposition, you may dispose of them as you wish.

In consideration of the faithful carrying out of this Agreement by me and as full compensation for my services, you are to pay me at the rate of ..... per necessary weight to give 100 pounds of hand-picked ..... for all seed in excess of the Stock Seed furnished me, delivered under this contract and accepted by you; payment to be made immediately upon your acceptance of the seed. No payment is to be made



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BUSH LIMA  
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STOCK WHICH  
INVITES  
COMPARISON

**WHAT MERCHANDISE  
CAN THE SEED DEALER  
HANDLE PROFITABLY?**

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for any seed which you do not consider sufficiently pure, clean and dry for Seedsman's use and no credit is to be given for dirt, or for damaged or poor seed which has to be removed. In all cases, the screenings and culls are to remain the property of the party who separates them from the crop.

If so requested in writing, you shall loan for my use free of charge, suitable bags for shipping the crop, or you shall allow me full wholesale market value for all new, sound, undefaced, seamless cotton grain bags which I may buy and you receive containing the crop.

This letter, when accepted by you, shall constitute our contract, and be construed according to.....laws. There are no agreements or understandings regarding the subject matter of this letter other than expressed above.

Yours truly,

Accepted at.....this ..... day of.....19....

.....Seed Co.

By.....

In Thiel vs. Pac. Fruit & Produce Co., 4 Pac. (2nd) 356, a seedsman was defeated because he had failed to incorporate in his contract a reservation of title such as is included in the Ferry form. See also Robinson vs. Stricklin, 73 Nebr. 242.

#### Loss in Shipment

*Question: Where peas are shipped under a "shippers order" bill of lading with draft attached, which party stands the risk of loss in course of shipment?*

ANSWER: The Buyer. "As soon as the peas arrived and were stored, the title to the peas passed to the appellant buyer subject to the respondent seller's right to hold the goods until payment of the agreed purchase price." Inland Seed Co. vs. Washington-Idaho Seed Co., 294 Pac., 991.

#### Notice of Defects

*Question: Can a buyer of warranted seed, in the face of knowledge that the seed is faulty, plant it and recover crop damage?*

ANSWER: No. In Tomita vs. Johnson

(Idaho), 290 Pac. 395, it was shown that an experienced potato grower knew from cutting into the seed potatoes that they were diseased, and the Court held "under these facts he cannot recover crop damage resulting from planting the diseased seed in question."

#### Plant Patents

*Question: What are the statutory limitations upon plant patents?*

ANSWER: The Patent Law in Sec. 4886 provides that "any person who has invented or discovered any new and useful art, machine \* \* \* or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant, not known or used by others may, upon payment of the fees required by law \* \* \* obtain a patent." The limitation to asexual reproduction means that the plants of most importance economically are excluded. For example, our common cereals being reproduced by seed and not by cuttings cannot be patented. The "tuber-propagated" wording is for the purpose of excluding potatoes. It should be noted that the wording of the statute requires that mechanical patents be "useful" but that this word does not appear in the phraseology relating to plant patents.

#### Trade Mark; Variety Name

*Question: We have originated a new variety of sweet corn. Can we prevent competition by trade marking the name?*

ANSWER: No. The name which you give to your new variety will become in substance a descriptive name and can be used as such by any person to describe seed from the same strain. The proper function of a trade mark is simply to identify the producer or origin of goods. In general a descriptive name is not available for registration as a trade mark. See Hoyte vs. Lovett, 71 Federal 173, 178.

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JUNE 7 DEC. 6

JUNE 21 DEC. 20



## COMMODITIES FOR WHICH BUSHEL WEIGHTS HAVE BEEN ESTABLISHED IN MORE THAN FOUR STATES

Kind	Commonly Accepted Weight per Bu.—Lbs.	
Alfalfa .....	60	
Barley .....	48	50 lbs. in California. 32 lbs. in Louisiana.
Beans .....	60	
Beans, Castor ....	46	50 lbs. in Iowa, Maryland, Nebraska and South Dakota. 48 lbs. in Florida.
Beans, Lima .....	56	
Beans, Soy .....	58	60 lbs. in North Carolina and Virginia.
Bluegrass .....	14	
Bran .....	20	
Bromegrass .....	14	
Broomcorn .....	50	42 lbs. in Alabama, South Carolina and Tennessee. 48 lbs. in Arkansas, Illinois, Oklahoma and Texas. 30 lbs. in Kansas and North Dakota. 57 lbs. in Minnesota and West Virginia. 44 lbs. in North Carolina. 45 lbs. in Ohio.
Buckwheat .....	48	50 lbs. in Alabama, Idaho, Minnesota, Nebraska, Nevada, North Carolina, Ohio, South Carolina, Tennessee and Wisconsin. 52 lbs. in Arkansas, Georgia, Illinois, Missouri, Montana, New Mexico, Oklahoma and Texas. 40 lbs. in California. 56 lbs. in Kentucky. 42 lbs. in North Dakota.
Canary Seed .....	60	
Clover Seed .....	60	
Corn, Cracked ....	50	
Corn, in Ear .....	70	68 lbs. in Ohio and West Virginia.
Corn, Pop, in Ear ..	70	42 lbs. in Ohio.
Corn, Shelled ....	56	52 lbs. in California.
Corn, Sweet .....	50	48 lbs. in Minnesota and North Dakota. 45 lbs. in Ohio.
Cornmeal .....	50	48 lbs. in Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Mississippi, Nebraska, Nevada, Ohio, Virginia and West Virginia.
Cottonseed .....	32	30 lbs. in Georgia, North Carolina, South Carolina and Virginia. 33 $\frac{1}{3}$ lbs. in Arkansas. 33 lbs. in Missouri. 28 lbs. in Tennessee
Emmer .....	40	48 lbs. in Nebraska. 45 lbs. in Wyoming.
Flaxseed .....	56	
Hempseed .....	44	50 lbs. in Minnesota and North Dakota. 48 lbs. in Nevada.
Herdsgrass .....	45	
Kafir Corn .....	56	50 lbs. in North Carolina and Texas.
Kale .....	12	10 lbs. in North Carolina. 15 lbs. in South Carolina. 30 lbs. in Tennessee.
Millet .....	50	48 lbs. in Minnesota.
Millet, Jap .....	35	
Oats .....	32	
Orchard Grass ...	14	
Peanuts .....	22	25 lbs. in Georgia. 20 lbs. in Illinois, Maine, New Hampshire, South Dakota and Vermont. 24 lbs. in Kentucky and Mississippi. 23 lbs. in South Carolina and West Virginia.
Peas .....	60	
Potatoes, Irish ...	60	56 lbs. in West Virginia.
Potatoes, Sweet ...	50	55 lbs. in Alabama, Georgia, Kentucky, Minnesota and Oklahoma. 54 lbs. in Connecticut, Maine, Mississippi, New Hampshire, New York, Pennsylvania, Rhode Island, South Dakota, Vermont and Wisconsin. 56 lbs. in Florida, Michigan, Missouri, North Carolina and Virginia.
Rape Seed .....	50	
Red Top .....	14	
Rice (unhulled)...	45	44 lbs. in Maine, North Carolina and South Carolina. 43 lbs. in Georgia.
Rye .....	56	54 lbs. in California.
Sorghum .....	50	57 lbs. in Minnesota, North Dakota and West Virginia. 56 lbs. in Florida. 42 lbs. in Mississippi and Missouri.
Speltz .....	40	48 lbs. in Nebraska. 45 lbs. in Wyoming.
Timothy .....	45	60 lbs. in Arkansas.
Wheat .....	60	



## TRADE MARKS AND SLOGANS

MANY SEEDSMEN as well as manufacturers have spent years in building up a demand for their trade-marked items and buyers have for years bought on these brands. At times a buyer does not remember the name of the manufacturer or seedsman who produces a certain brand. This alphabetical list of trade-marked brands should prove useful. For names of firms using trade marks not listed here, write us.

### SEEDS

- Acme**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- Aero**—garden, flower and field seeds—Griswold Seed & Nursery Co., Lincoln, Nebr.
- AH**—garden seeds—A. Hansen, Kastrup, Denmark.
- A. H. 291**—cauliflower seed—A. Hansen, Kastrup, Denmark.
- Antelope**—seeds—Nebraska Seed Co., Omaha, Nebr.
- Asgrow**—seeds—Associated Seed Growers, Inc., New Haven, Conn.
- Beaver**—timothy seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Best Seeds**—farm and garden seeds—T. Lee Adams Seed Co., Kansas City, Mo.
- Big Chief**—field seeds—Northwestern Seed Co., Keokuk, Iowa.
- Blackfoot**—alfalfa seed—Idaho Grimm Alfalfa Seed Growers Assn., Blackfoot, Idaho.
- Blackfoot**—alfalfa seed—W. H. Crossland, Milwaukee, Wis.
- Blood Tells**—seeds—Rogers Bros. Seed Co., Chicago, Ill.
- Bloomsdale**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Brent's Premium**—field and garden seeds—C. S. Erent Seed Co., Lexington, Ky.
- Brown's Tested Seeds—They Grow**—garden seeds—Alfred J. Brown Seed Co., Grand Rapids, Mich.
- Buckeye**—seeds—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Bullet's Prize Medal**—garden seeds—Robt. Bullet Co., Philadelphia, Pa.
- Burpeeana**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Burpee's Seeds Grow**—W. Atlee Burpee Co., Philadelphia, Pa.
- Cantaloupe—Imperial**—cantaloupe seed—J. C. Robinson Seed Co., Waterloo, Nebr.
- Central Park**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Chr. Olsen**—garden, root and grass seeds—Chr. Olsen, Ltd., Odense, Denmark.
- Colonial Boy**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Columbia Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Compass Brand**—field seeds—Davenport Seed Co., Davenport, Iowa.
- Crystal**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Cucumber—Colorado**—cucumber seed—J. C. Robinson Seed Co., Waterloo, Nebr.
- Daehnfeldt's**—seeds—L. Daehnfeldt & Theo. Jensen, Odense, Denmark.
- Dependability**—watermelon seeds—D. H. Gilbert, Monticello, Fla.
- Disco**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Duryea's Central Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Eagle**—alsike seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Emerald**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Ermine**—timothy seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Evergreen**—lawn green seed—Duryea Seed Co., Inc., New York, N. Y.
- Falcon**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Farmer Brand**—farm and garden seeds—Farmer Seed & Nursery Co., Faribault, Minn.
- Ferti-Lawn**—fertilized lawn seed—Fertilawn Co., Inc., Hamilton, N. Y.
- Floradale**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Fordhook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Gladflower**—flower seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Goldinhardt**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Gold Medal**—field seeds—Louisville Seed Co., Louisville, Ky.
- Gold Standard**—red top seed—J. M. Schultz Seed Co., Dieterich, Ill.
- Gramercy Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Greene Park**—lawn grass seed—Page Seed Co., Greene, N. Y.
- Greenway**—lawn seed—Wm. G. Scarlett & Co., Baltimore, Md.
- Haco**—red cabbage seed—Hjalmar Hartmann & Co., Copenhagen, Denmark.
- Harvest**—field seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Hawk**—alsike seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Hawk-Eye**—field seeds—Hamilton Seed & Coal Company, Cedar Rapids, Iowa.
- Heinr. Mette**—vegetable and flower seeds—Heinr. Mette, Quedlinburg, Germany.
- Helios**—cauliflower seed—J. E. Ohlsens Enke, Copenhagen, Denmark.
- Idatah**—field seeds—Occidental Seed Co., Salt Lake City, Utah.
- Interstate**—seeds, grain, potatoes—Interstate Seed & Grain Co., Fargo, N. D.
- Iroquois**—farm seeds—Iroquois Seed Service, Chicago, Ill.
- Isbell**—seeds—Isbell Seed Co., Jackson, Mich.
- It Pays to Sow 'Em**—field seeds—Ross Seed Co., Louisville, Ky.
- J. Chas. McCullough Seed Co.**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- K**—field seeds—H. C. King & Sons, Inc., Battle Creek, Mich.
- K-T Hungary**—field seeds and bird foods—Kemeny Tibor, Budapest, Hungary.
- Kelway's**—flower seeds—Kelway & Son (1933) Ltd., Langport, England.
- Keystone**—seeds—Corneli Seed Co., St. Louis, Mo.
- Knox's Quality**—farm and garden seeds—Paramount Seed Co., Stockton, Calif.
- Lago**—garden seeds—F. Lagomarsino & Sons, Sacramento, Calif.
- Landreth's**—garden seeds—D. Landreth Seed Co., Bristol, Pa.
- Leonard's Seeds**—Leonard Seed Co., Chicago, Ill.
- Lilly's**—seeds—Chas. H. Lilly Co., Seattle, Wash.
- Lion Brand**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Loechner**—vegetable, flower, grass and field seeds—Loechner & Co., Inc., New York, N. Y.



- Lone Star**—bulbs—American Bulb Co., Chicago, Ill.
- McCullough's Seeds**—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- M**—field seeds—Ed. F. Mangelsdorf & Bro., St. Louis, Mo.
- Marvelawn**—grass seed—Page Seed Co., Greene, N. Y.
- Master Farmer**—farm and garden seeds—Farmer Seed & Nursery Co., Faribault, Minn.
- Maybell Pure**—field seeds—Ross Seed Co., Louisville, Ky.
- Meeters**—onion sets—Meeters Inc., Lansing, Ill.
- Mile High**—seeds—Grand Junction Seed Co., Grand Junction, Colo.
- Milford**—grass seed—F. H. Woodruff & Sons, Milford, Conn.
- Milford Green**—lawn seed mixture—F. H. Woodruff & Sons, Milford, Conn.
- "Nasiona"**—seeds—"Nasiona," Danzig.
- Never Die**—lawn grass seed—D. Landreth Seed Co., Bristol, Pa.
- Newday**—farm seeds—Newday Seeds, Inc., Fargo, N. D.
- Old English**—lawn seed—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—flower seeds—Kelway & Son (1933) Ltd., Langport, England.
- Old Homestead**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- O & M**—field, garden, lawn seeds and seed grains—O & M Seed Co., Green Springs, Ohio.
- Oriole**—field and bird seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Oscobrand**—seeds—Ouren Seed Co., Council Bluffs, Iowa.
- Our Seeds Grow Friends**—seeds—Washburn-Wilson Seed Co., Moscow, Idaho.
- P**—seeds—A. S. Paterson & Co., Ltd., Dunedin, New Zealand.
- Paramount**—lawn seed—Garfield Williamson, Inc., New York, N. Y.
- Paramount**—field and garden seeds—Paramount Seed Co., Stockton, Calif.
- Par Four**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Paseco**—seed corn—Page Seed Co., Greene, N. Y.
- Pedigree Seeds**—seeds—D. Landreth Seed Co., Bristol, Pa.
- Pine Tree**—farm seeds—Albert Dickinson Co., Chicago, Ill.
- Platte**—seeds—Nebraska Seed Co., Omaha, Nebr.
- Purseed**—seeds—Blamberg Bros., Inc., Baltimore, Md.
- P-WSCO**—garden seeds—Pieters-Wheeler Seed Co., Gilroy, Calif.
- Quaker**—field seeds—Philadelphia Seed Co., Philadelphia, Pa.
- Radway's Central Park**—lawn seed—Radway-McCullough Seeds, Inc., New York, N. Y.
- Radway's Tested Seeds**—Radway-McCullough Seeds, Inc., New York, N. Y.
- Reliable**—timothy seed—J. M. Schultz Seed Co., Dieterich, Ill.
- Royal Quality**—field and grass seeds—Rudy-Patrick Seed Co., Kansas City, Mo.
- Santa Barbara**—seed beans—McCrea Seed Co., Santa Barbara, Cal.
- Sealed Color-Tru**—tomato seed—Haven Seed Co., Santa Ana, Calif.
- Security**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Seeds That Grow**—W. Atlee Burpee Co., Philadelphia, Pa.
- Seeds Which Succeed**—seeds—D. Landreth Seed Co., Bristol, Pa.
- Sickle**—seed—I. L. Radwaner Seed Co., New York, N. Y.
- Sioux**—field, garden and flower seeds—Sioux City Seed Co., Sioux City, Iowa.
- Six Green Stripes**—blue grass seed—Nebraska Seed Co., Omaha, Nebr.
- Solar Brand**—field seeds—Henry Hirsch & Sons, Toledo, Ohio.
- Soo-Bred**—bantam sweet corn—Sioux City Seed Co., Sioux City, Ia.
- S & S**—field seeds—Shuler & Smoak, Orangeburg, S. C.
- Stork**—field seeds—Minneapolis Seed Co., Minneapolis, Minn.
- Suburban**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Suhr's Seed Sure Success**—garden seeds—E. Suhr Co., New York, N. Y.
- Sunnybrook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Sunshine**—farm and garden seeds—Dakota Improved Seed Co., Mitchell, S. D.
- Super—Regame**—cauliflower seed—A. Hansen, Kastrup, Denmark.
- Tiger**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Turfmaker**—lawn seed mixture—F. H. Woodruff & Sons, Milford, Conn.
- Universal**—grass seed—Garfield Williamson, Inc., New York, N. Y.
- Utryit**—seeds—The Nebraska Seed Co., Omaha, Nebr.
- Value Brand**—field seeds—Henry Hirsch & Sons, Toledo, Ohio.
- Ver-E-Best**—seeds—Market Gardeners' Seed Co., Cincinnati, Ohio.
- Village Green**—lawn grass mixtures—Duryea Seed Co., Inc., New York, N. Y.
- Wab**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Waller's**—flower seeds—Waller-Franklin Seed Co., Guadalupe, Cal.
- Washington Park**—lawn seed—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Wolf**—red clover seed—Steele, Briggs Seed Co., Toronto, Ont., Can.
- Woodco**—lawn seed mixture and grass seed—F. H. Woodruff & Sons, Milford, Conn.
- Woodland Path Shady**—lawn seed—J. M. McCullough's Sons Co., Cincinnati, O.
- XXXX**—seeds—The J. M. McCullough's Sons Co., Cincinnati, Ohio.
- Ye Olde Copenhagen Market**—a Copenhagen market cabbage seed—Hjalmar Hartmann & Co., Copenhagen, Denmark.
- Yorkshire Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.

## ALLIED LINES

- AAZ Special**—zinc oxide seed treatment—Rohm & Haas Co., Philadelphia, Pa.
- Acme**—arsenate of lead, arsenate of zinc, bordeaux mixture, calcium arsenate, lime sulphur, paris green, spray soap, insecticides, poultry lice killers—Acme White Lead and Color Works, Detroit, Mich.
- Acme**—mole traps—C. E. Grelle, Portland, Ore.
- Agate**—seed scale—Henry Troemner, Philadelphia, Pa.
- Agri-Pax**—insecticide—Morris B. Reade, Inc., Belleville, N. J.
- All Round Spray**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Androck**—plant supports—Michigan Wire Goods Co., Niles, Mich.
- Annia Germ**—fumigant insecticide—Douglas Chem. & Sup. Co., Kansas City, Mo.
- Ant Gas**—ant exterminator—Hammond Paint & Chemical Co., Beacon, N. Y.
- Ant Kill**—pest exterminator—Acme White Lead & Color Works, Detroit, Mich.
- Aphis Spray**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Aristocrat**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Awinc**—pyrethrum spray—Andrew Wilson, Inc., Springfield, N. J.
- Balt-M**—insecticide bait—Acme White Lead & Color Works, Detroit, Mich.
- Banner**—poultry feed—Ouren Seed Co., Council Bluffs, Iowa.
- Banner**—root cutters—O. E. Thompson & Sons, Ypsilanti, Mich.
- Bartlett**—pruning tools—Bartlett Mfg. Co., Detroit, Mich.



- Bean Beetle Dust**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Bemis-A**—cotton seamless bags—Bemis Bro. Bag Co., St. Louis, Mo.
- Bemis Special**—threads—Bemis Bro. Bag Co., St. Louis, Mo.
- Bird Neponset**—flower pots, covers and earth bands—Bird & Son, Inc., East Walpole, Mass.
- Black Arrow**—insecticide—McCormick & Co., Baltimore, Md.
- Black Leaf 40**—insecticide, poultry lice killer, worm remedy and dog repellent—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- Bor-tox**—boring insect control—Andrew Wilson, Inc., Springfield, N. J.
- Brown**—bag filling machine—Brown Bag Filling Machine Co., Fitchburg, Mass.
- Brownie**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Buhler**—patented vibrationless sieve drives—S. Howes Co., Silver Creek, N. Y.
- Bull Dog**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Bull's Eye Catalog Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- C-A**—chicken mite killer—C-A Wood Preserver Co., St. Louis, Mo.
- Camel**—tags and boxes—Campbell Box & Tag Co., South Bend, Ind.
- Cascade**—vertical seed mixers—S. Howes Co., Silver Creek, N. Y.
- Cattle Comfort**—stock spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Celophane**—seed enclosure—I. L. Radwaner Seed Co., New York, N. Y.
- Ceresan—New Improved**—wheat, oats and barley seed treatment—Bayer-Semesan Co., Wilmington, Del.
- Champion**—peanut pickers—Ellis Keystone Agri. Works, Pottstown, Pa.
- Champion**—scoops—Michigan Wire Goods Co., Niles, Mich.
- Champion**—weighing and filling machines—S. Howes Co., Silver Creek, N. Y.
- Clark's**—parapin wax, melters, dip tanks—Walter E. Clark & Son, Milford, Conn.
- Clute**—air-lift elevators and fruit graders—Oliver Mfg. Co., St. Louis, Mo.
- Collie**—seed bags—Miller, Tompkins & Co., East Rutherford, N. J.
- Compound Lever**—tree trimmer—Bartlett Mfg. Co., Detroit, Mich.
- Coposil**—spray dust product—Grasselli Chem. Co., Cleveland, O.
- Cornell**—feeds—Blamberg Bros., Inc., Baltimore, Md.
- Cuprocide**—red copper oxide seed treatment—Rohm & Haas Co., Philadelphia, Pa.
- Dawg-Gone**—dog repellent—Acme White Lead & Color Works, Detroit, Mich.
- Deridust**—insecticide—S. B. Penick & Co., New York, N. Y.
- Derispray**—insecticide—S. B. Penick & Co., New York, N. Y.
- Disbrow Seal Brand**—seed packets and bags—Disbrow Mfg. Co., Newark, N. J.
- Dixie**—chick feeder—Hoeft & Co., North Chicago, Ill.
- Do-All Green Dust**—insecticide, fungicide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Dog Skat**—tree and shrub protector—Hammond Paint & Chem. Co., Beacon, N. Y.
- Dogzoff**—dog repellent—Bohlender Plant Chemicals, Inc., Tippecanoe City, Ohio.
- Driconure**—fertilizer—Atkins & Durbrow, Inc., New York, N. Y.
- Du Bay 738**—soil disinfectant for bottom rot of lettuce—Bayer-Semesan Co., Wilmington, Del.
- Dutox**—non-arsenical insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Eclipse**—lawn mowers—Eclipse Lawn Mower Co. Prophetstown, Ill.
- Ellis Champion**—grain threshers—Ellis Agricultural Works, Pottstown, Pa.
- Eureka**—seed cleaners, separators and graders, lawn seed mixers, scarifiers and other seed processing machinery—S. Howes Co., Silver Creek, N. Y.
- Everlastic**—glazing bedding putty—Hammond Paint & Chemical Co., Beacon, N. Y.
- Exact Weight**—scales—Exact Weight Scale Co., Columbus, Ohio.
- Floragard**—insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Fly-Away**—spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Foliafume**—insecticide—S. B. Penick & Co., New York, N. Y.
- For-Get-Me-Not**—natural and colored raffia—Julius Loewith, Inc., New York, N. Y.
- Form-O-Fume**—formaldehyde dust—Rohm & Haas Co., Philadelphia, Pa.
- Four-In-One**—percentage scale—Seed Trade Reporting Bureau, Chicago, Ill.
- Fumigato**—fumigant—Douglas Chemical & Supply Co., Kansas City, Mo.
- Fung-O**—liquid fungicide—Andrew Wilson, Inc., Springfield, N. J.
- Fun-L-Fill**—sprayers—Dobbins Mfg. Co., North St. Paul, Minn.
- Garden Guard**—insecticide and fungicide—Acme White Lead & Color Works, Detroit, Mich.
- Garden Volck**—spray and dust product—Grasselli Chemical Co., Cleveland, Ohio.
- Gardex**—garden tools—Gardex, Inc., Michigan City, Ind.
- Gem**—chick waterer—Hoeft & Co., North Chicago, Ill.
- Germaco**—hotkaps—Germain Seed & Plant Co., Los Angeles, Calif.
- Globe**—feeds—Albert Dickinson Co., Chicago, Ill.
- G & O**—sprayers, insecticides, disinfectants, egg preservatives, chicken mite killers, crow repellents, fertilizers, fly repellents, fumigants, fungicides, pest exterminators, plant foods, rabbit supplies, stock remedies, mole and animal traps, weed destroyers—Goulard & Olena, Inc., New York, N. Y.
- Gold Leaf**—tobacco powder—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- GPM**—peat moss—Atkins & Durbrow, Inc., New York, N. Y.
- Grape and Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Grasselli**—Bordeaux Mixture—Grasselli Chem. Co., Cleveland, Ohio.
- Grasselli**—arsenate of lead—Grasselli Chem. Co., Cleveland, Ohio.
- Grasselli**—spray products—Grasselli Chemical Co., Cleveland, Ohio.
- Grip-Lock**—bag seal—E. J. Brooks Co., Newark, N. J.
- Growmore**—chick feed—The Ackerman Company, Lima, Ohio.
- Grub-O**—lawn grub proofing compound—Andrew Wilson, Inc., Springfield, N. J.
- Hammond's**—insecticides, fungicides, paints and putties—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hammond's Copper Solution**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Heco**—envelopes—Heco Envelope Co., Chicago, Ill.
- Henry Troemner**—weighing apparatus—Henry Troemner, Philadelphia, Pa.
- Herbst**—bag cleaners—S. Howes Co., Silver Creek, N. Y.
- Hi-Lo-Fosphate**—for available phosphates—Urbana Laboratories, Urbana, Ill.
- Hitox**—insecticide—Hitox Products Corp., New York, N. Y.
- Hoffer Test**—for nitrogen and potash—Urbana Laboratories, Urbana, Ill.
- Hofmann**—plant food distributor—Salem Tool Co., Salem, Ohio.
- Hofmann, Jr.**—plant food distributor—Salem Tool Co., Salem, Ohio.
- Hofmann, Sr.**—plant food distributor—Salem Tool Co., Salem, Ohio.



- Horicum Lime**—sulphur concentrate and fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hotkaps**—plant protectors—Germain Seed & Plant Co., Los Angeles, Cal.
- Howes**—equipment for seed houses—S. Howes Co., Silver Creek, N. Y.
- Hudson**—sprayers—H. D. Hudson Mfg. Co., Chicago, Ill.
- Hudson Kleen-EZY**—poultry equipment—H. D. Hudson Mfg. Co., Chicago, Ill.
- Humogerm**—inoculant—Kalo Inoculant Co., Quincy, Ill.
- H. W. K.**—weed killer—Hammond Paint & Chemical Co., Beacon, N. Y.
- Hydro-Air**—power sprayer—Andrew Wilson, Inc., Springfield, N. J.
- Hydroxide**—insecticide—Mechling Bros. Chem. Co., Camden, N. J.
- Hyper-Humus**—plant food and fertilizer—Hyper-Humus Co., Philadelphia, Pa.
- Interstate**—feeds—Interstate Seed & Grain Co., Fargo, N. D.
- Invincible**—bean polishers and bean cleaning and grading equipment—S. Howes Co., Silver Creek, N. Y.
- Iron Age**—garden tools—Ellis Keystone Agricultural Works, Pottstown, Pa.
- Japtox**—Japanese bean beetle destroyer—Mechling Bros. Chem. Co., Camden, N. J.
- Jay Bee**—feed grinders, feed mixers, hammer mills, roughage grinders, oat crushers, grain mills, alfalfa mills, portable mills, corn crackers, batch mixers, molasses mixers, poultry feed machinery—J. B. Sedberry, Inc., Utica, N. Y.
- Kalite-Dust**—insecticide—The Kalo Company, Quincy, Ill.
- Kalo**—dry insecticide—The Kalo Company, Quincy, Ill.
- Kalo**—poultry and livestock remedies—The Kalo Company, Quincy, Ill.
- Kalobait**—pest exterminator (for worms and grasshoppers)—Kalo Co., Quincy, Ill.
- Kalo Dairy Ration**—for cows—The Kalo Company, Quincy, Ill.
- Kalo Spray**—insecticide—The Kalo Company, Quincy, Ill.
- Kalo Stock Dip**—The Kalo Company, Quincy, Ill.
- Kalolil**—pyrethrum non-poisonous spray, insecticide—The Kalo Company, Quincy, Ill.
- Kalo Wormoil**—hog remedy—The Kalo Company, Quincy, Ill.
- Kalo Wormout Tablets**—sheep and goat remedy—The Kalo Company, Quincy, Ill.
- Kerosene Emulsion**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Keystone**—circular wood saws and fodder cutters—Ellis Keystone Agricultural Works, Pottstown, Pa.
- Keystone**—fish oil spray soaps—James Good, Inc., Philadelphia, Pa.
- Killal**—insecticide—Kalo Company, Quincy, Ill.
- Kleenup Oil**—for control of scale, red mite and leaf roller—Grasselli Chemical Co., Cleveland, Ohio.
- Kleenup-Tar Oil Emulsion**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- Klen-O-Cil**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- Lac-Hi-Potash**—for replaceable potassium—Urbana Laboratories, Urbana, Ill.
- Lawnette**—seeder and fertilizer spreader—O. E. Thompson & Sons, Ypsilanti, Mich.
- Laymore**—poultry feed—The Ackerman Co., Lima, Ohio.
- Lethane 420**—insecticide—Rohm & Haas Co., Philadelphia, Pa.
- Lethane Junior**—insecticide—Rohm & Haas Co., Philadelphia, Pa.
- Lilly's**—fertilizers and dairy feeds—Chas. H. Lilly Co., Seattle, Wash.
- Liquid Slug Shot**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Little Giant**—mole traps—Michigan Wire Goods Co., Niles, Mich.
- Little Wonder**—hedge trimmer—Detco Mfg. Co., Oaks (Montgomery Co.) Penna.
- London Purple**—insecticide—Acme White Lead & Color Works, Detroit, Mich.
- Loro**—insecticide—Grasselli Chemical Co., Cleveland, Ohio.
- Lyric**—mixed bird seed—Philadelphia Seed Co., Philadelphia, Pa.
- Mainstay**—cotton twine for closing bags by hand sewing—Bemis Bro. Bag Co., St. Louis, Mo.
- Manganar Rose Dust**—fungicide—Grasselli Chemical Co., Cleveland, Ohio.
- Mechling's Scale Oil**—insecticide—Mechling Bros. Chem. Co., Camden, N. J.
- Miller's**—dog food—Battle Creek Dog Food Co., Battle Creek, Mich.
- Mix**—bean sorters—S. Howes Co., Silver Creek, N. Y.
- Modern Form**—order blanks—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Moe's Line**—poultry supplies and garden tools, fertilizer spreader and seeder—Hoeft & Co., Inc., North Chicago, Ill.
- Morecorn**—seed corn sorters and graders—Universal Hoist & Mfg. Co., Cedar Falls, Iowa.
- M-S-R Dusting Sulphur**—rose dust—Acme White Lead & Color Works, Detroit, Mich.
- Mt. Beacon**—green shading—Hammond Paint & Chemical Co., Beacon, N. Y.
- Naptoside**—fumigant, insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Need Envelopes? Phone Heco!**—Hecc Envelope Co., Chicago, Ill.
- Neponset**—flower pots, flower pot covers and earth bands—Bird & Son, Inc., East Walpole, Mass.
- Neva-Fale**—plant spray—Morris B. Reade, Inc., Belleville, N. J.
- New Day**—feeds—Newday Seeds, Inc., Fargo, N. D.
- Nico-Fume**—liquid, paper and powder insecticide—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- Nicotine Soap**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Nicotine Poultry Delouser**—lice killer—Acme White Lead & Color Works, Detroit, Mich.
- Nitragin**—soil and legume inoculator—The Nitragin Co., Inc., Milwaukee, Wis.
- No Crow**—crow repellent—Hammond Paint & Chem. Co., Beacon, N. Y.
- Nod-O-Gen**—inoculant—Albert Dickinson Co., Chicago, Ill.
- Nu Green**—fungicide for brown patch of grasses control—Bayer-Semesan Co., Wilmington, Del.
- Nu Rexform**—codling moth & other insect control—Grasselli Chem. Co., Cleveland, Ohio.
- Nursery Volek**—spray and dust product—Grasselli Chem. Co., Cleveland, Ohio.
- O. K.**—plant spray—Andrew Wilson, Inc., Springfield, N. J.
- OKPL**—poultry litter—Atkins & Durbrow, Inc., New York, N. Y.
- Old English Lawn Kleanser**—Japanese beetle exterminator—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—liquid putty—Hammond Paint & Chemical Co., Beacon, N. Y.
- Old English**—sheep manure—Philadelphia Seed Co., Philadelphia, Pa.
- Old English**—turf builder and plant food—Philadelphia Seed Co., Philadelphia, Pa.
- Oliver**—gravity separators and portable electric blowers—Oliver Mfg. Co., St. Louis, Mo.
- Original**—greenhouse white paint—Hammond Paint & Chem. Co., Beacon, N. Y.
- P. A. C. 6% Formaldehyde Dust**—soil sterilizer—Grasselli Chemical Co., Cleveland, Ohio.
- Pacific**—goldfish and supplies—Pacific Goldfish Farm, Westminster, Calif.
- Paragon**—sprayers—Campbell-Hausfeld Co., Harrison, Ohio.
- Patch**—budder—Walter E. Clark & Son, Milford, Conn.



- Peerless**—gunning asbestos asphaltum—Hammond Paint & Chemical Co., Beacon, N. Y.
- Perfection**—plant markers and stakes—S-W Supply Co., Girard, Kansas.
- Pest-Kit**—kit containing material to combat insects and diseases—Hammond Paint & Chemical Co., Beacon, N. Y.
- Pictorial**—cover stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Pinaveras**—disinfectant—Morris B. Reade, Inc., Belleville, N. J.
- Plantspur**—fertilizer—Garfield Williamson, Inc., New York, N. Y.
- Porter**—bag seals—Porter Safety Seal Co., Chicago, Ill.
- Production English Finish Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Production Super Book**—paper stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Production Super**—cover stock—Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.
- Protecto-Seal**—bag seals—Protecto-Seal Co., Buffalo, N. Y.
- Purgain**—pigeon, poultry and rabbit feeds and pigeon health grit—Philadelphia Seed Co., Philadelphia, Pa.
- Pyrote**—non poisonous double acting insecticide—Mechling Bros. Chemical Co., Camden, N. J.
- Pysol**—McCormick & Co., Baltimore, Md.
- Quick-Seal**—envelope sealing machine—Schuyler Arnold, Coldwater, N. Y.
- Racine**—fanning mill type seed cleaners—S. Howes Co., Silver Creek, N. Y.
- Reade's**—horticultural chemicals and fertilizer—Morris B. Reade, Inc., Belleville, N. J.
- Red A**—pyrethrum powder and liquid soap—McCormick & Co., Baltimore, Md.
- Red Arrow**—insecticide—McCormick & Co., Baltimore, Md.
- Reddick**—mole trap—Michigan Wire Goods Co., Niles, Mich.
- Red Star Brand**—raffia—McHutchison & Co., New York, N. Y.
- Reliable**—poultry supplies—Reliable Incubator & Brooder Co., Quincy, Ill.
- Rhodono**—plant food—Garfield Williamson, New York, N. Y.
- Rhody-Life**—Andrew Wilson, Inc., Springfield, N. J.
- Rich-or-Poor**—for soil acidity—Urbana Laboratories, Urbana, Ill.
- Rid-O-Rat**—non poisonous liquid rat exterminator—Andrew Wilson, Inc., Springfield, N. J.
- Root Quality**—bee supplies—A. I. Root Co., Medina, Ohio.
- Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Rotofume**—liquid Rotenone insecticide—Andrew Wilson, Inc., Springfield, N. J.
- Steco**—fertilizer, plant food, fertilizer spreader and seeder—Smith Agri. Chemical Co., Columbus, Ohio.
- Salem-18", 24" and 36"**—fertilizer spreader and compost maker—Salem Tool Co., Salem, Ohio.
- Seale-O**—dormant spray—Andrew Wilson, Inc., Springfield, N. J.
- Seal Brand**—seed packets and bags—Durbrow Mfg. Co., Newark, N. J.
- Seals That Seal**—seals—Porter Safety Seal Co., Chicago, Ill.
- Seedburo Quality**—grain, seed and flour grading equipment—Seed Trade Reporting Bureau, Chicago, Ill.
- Self-Serve**—seed packet display racks—Davis Metal Fixture Co., Lansing, Mich.
- Semesan**—seed treatment for seeds, bulbs and brown patch of grasses, also for damping off of seedlings—Bayer-Semesan Co., Wilmington, Del.
- Semesan Bell-New Improved**—instantaneous dip for seed white and sweet potatoes—Bayer-Semesan Co., Wilmington, Del.
- Semesan, Jr. — New Improved**—field and sweet corn seed treatment—Bayer-Semesan Co., Wilmington, Del.
- Sheep's Head Brand**—sheep and cattle manure, fertilizer—Natural Quano Co., Aurora, Ill.
- Sho-Gro**—seed germinators—Seed Trade Reporting Bureau, Chicago, Ill.
- Sholder**—scoop—Michigan Wire Goods Co., Niles, Mich.
- Slug Shot**—insecticide and fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Soil-O-Gas**—soil fumigant—Andrew Wilson, Inc., Springfield, N. J.
- Sorbex**—peat moss—Atkins & Durbrow, Inc., New York, N. Y.
- Specific**—gravity separators, cleaners and graders—Sutton, Steele & Steele, Dallas, Texas.
- Star**—poultry fountain—Hoeft & Co., North Chicago, Ill.
- Star**—pocket gopher trap—Michigan Wire Goods Co., Niles, Mich.
- Sterling**—feeds—Northrup, King & Co., Minneapolis, Minn.
- Stimugerm**—jelly and humus seed inoculator—Stimuplant Laboratories, Inc., Long Island City, N. Y.
- Stimuplant**—plant food—Stimuplant Laboratories, Inc., Long Island City, N. Y.
- Storm King**—greenhouse white paint and white glazing compound—Hammond Paint & Chemical Co., Beacon, N. Y.
- Sulforon**—fungicide—Grasselli Chemical Co., Cleveland, Ohio.
- Superbilt**—sprayers and dusters—Dobbins Mfg. Co., North St. Paul, Minn.
- Sure Shot**—concentrated pyrethrum soap spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Tetrafume**—rat exterminator—Douglas Chemical & Supply Co., Kansas City, Mo.
- Thompson**—fertilizer spreaders and seeders—O. E. Thompson & Sons, Ypsilanti, Mich.
- Thrip Juice**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.
- Tri-Tox-Cide**—thrips dust insecticide—Andrew Wilson, Inc., Springfield, N. J.
- Trowbridge**—grafting wax—Walter E. Clark & Son, Milford, Conn.
- True to Type**—seed pockets—Stecher-Traung Lithograph Corp., Rochester, N. Y.
- 2% Ceresan**—disinfectant for cotton, narcissus and peas—Bayer-Semesan Co., Wilmington, Del.
- 2 Way Spray**—insecticide and fungicide—Acme White Lead & Color Works, Detroit, Mich.
- Union**—garden tools—Union Fork & Hoe Co., Columbus, Ohio.
- Urbana Culture**—legume inoculator—Urbana Laboratories, Urbana, Ill.
- Visinet**—bags for fruit and vegetables—Bemis Bro. Bag Co., St. Louis, Mo.
- Wedo**—fertilizer and plant food—Smith Agri. Chem. Co., Columbus, Ohio.
- Weedex**—weed killer—James Good, Inc., Philadelphia, Pa.
- Wilson's**—dusting sulphur, lawn fertilizer, liquid insecticide soap, summer fruit fungicide, weed killer, tree wound paint, worm eradicator dust, high pressure spray hose, tree food, superbilt fertilizer distributor, estate power sprayer, dust gun—Andrew Wilson, Inc., Springfield, N. J.
- Windobag**—seed enclosure—I. L. Radwaner Seed Co., New York, N. Y.
- Wizard**—sheep and cattle manure—Pulverized Manure Co., Chicago, Ill.
- Woodco**—lawn food—F. H. Woodruff & Sons, Milford, Conn.
- XX Superior Brand**—raffia—McHutchison & Co., New York, N. Y.
- Yankee Mum**—manure—Garfield Williamson, Inc., New York, N. Y.
- X. L.**—lawn sprinklers—X. L. Mfg. Co., Chicago, Ill.





*Unbreakable!*

## Bird Neponset Growing Pots

### Reduce Expenses!

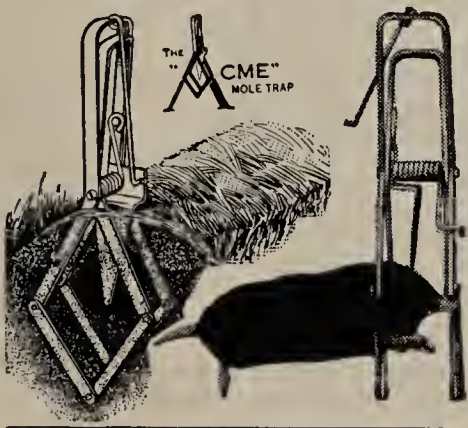
Grow your plants in the same pots in which they will be delivered to your customer. Eliminate transplanting expense. Tests prove that Neponset Growing Pots encourage maximum growth. Plants grown in them require less frequent watering.

Made of treated waterproof paper.

The Neponset Plant Box for growing and shipping one dozen plants is Bird's latest contribution to horticulture.

**BIRD & SON, inc.**

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THE **ACME** MOLE TRAP IS  
SUPERIOR IN ALL RESPECTS

Most Efficient Mole Trap  
on the Market

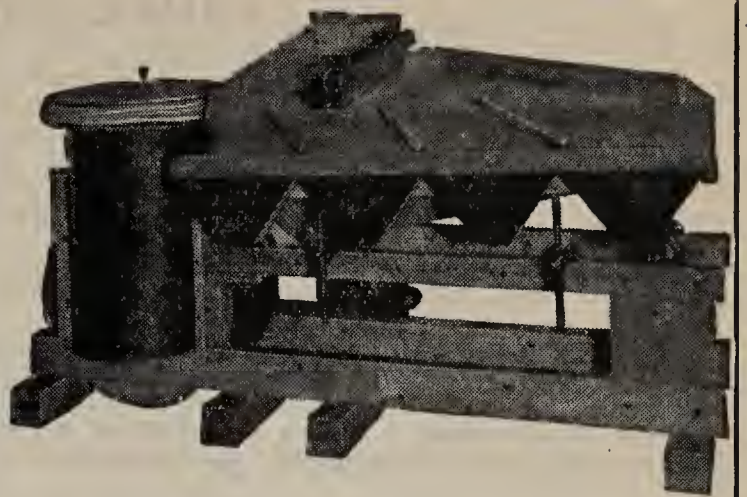
Highly Endorsed Wherever Used  
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Get acquainted with a mole trap that you  
will enjoy offering and recommending  
to your trade.

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We are exclusive manufacturers of  
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(Patented)



"OLIVER" Portable  
Electric Blowers have a  
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MEYER, LYRA & CO., INC.  
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## DIRECTORY SECTION

On the following pages are given the names and addresses of seed growers and wholesalers of both field and garden seeds. For manufacturers of store and warehouse supplies and merchandise for resale purposes, etc., see pages 122 and 162.

By this method of classification it is easy to locate the growers or wholesalers in any particular state or section of the country and the manufacturer or distributor of anything used by the seed dealer in the conduct of his own business or sold to his patrons.

Every effort has been made, in compiling this directory, to make it as complete as possible. The names and the lines handled were supplied by the firms listed in response to a general invitation to the trade.

The publication of this book has been made possible by the support and co-operation of the firms listed in bold face type and whose advertising appears on the pages as indicated by the numbers following their names.

In cases where firms specialize in the handling of a certain item this fact is indicated by the commodity appearing in parenthesis after the company's name.

### WHOLESALE FIELD SEEDS

#### ALABAMA

Birmingham Seed Co.  
Birmingham, Ala.  
Poyner Seed Co.  
Dothan, Ala.  
Wind & Co., I.  
Huntsville, Ala.  
Van Antwerp Seed Co.  
Mobile, Ala.

#### ARIZONA

Buckeye Seed & Feed Co.  
Buckeye, Ariz.  
Johnson-Pearce Co.  
Mesa, Ariz.  
Arizona Feed & Seed Association  
Phoenix, Ariz.  
Capital Fuel & Feed Co.  
Phoenix, Ariz.  
Liefgreen Seed Co.  
Phoenix, Ariz.  
Quick Seed & Feed Co.  
Phoenix, Ariz.  
Alfalfa Seed & Lumber Co.  
Yuma, Ariz.  
Blalack Feed & Seed Co.  
Yuma, Ariz.  
Sanguinetti, E. F.  
Yuma, Ariz.  
Whitman Seed Co.  
Yuma, Ariz.  
Yuma County Farm Bureau Marketing  
Association  
Yuma, Ariz.

#### ARKANSAS

Lee, Arthur G.  
Fort Smith, Ark.  
Bass-Isgrig Seed Co.  
Little Rock, Ark.  
Cochran Co., H. K.  
Little Rock, Ark.  
Texarkana Seed House  
Texarkana, Ark.  
Word Seed Store  
Texarkana, Ark.

#### CALIFORNIA

Bomberger Seed Co.  
Berkeley, Calif.  
Cuff-Archias Seed Co. (Sesbania and Melilotus Indica)  
Brawley, Calif.  
Loomis, Jay  
Hemet, Calif.  
Aggeler & Musser Seed Co.  
Los Angeles, Calif.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
(See Adv. on Page 161)  
Smith & Co., F. F.  
Sacramento, Calif.  
Ferry-Morse Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 76)  
Sevin-Vincent Seed Co.  
San Francisco, Calif.  
Volkmann & Co., C. M.  
San Francisco, Calif.

Paramount Seed Co.  
Stockton, Calif.

(See Adv. on Page 23)

#### CANADA

McKenzie Co., Ltd., A. E.  
Brandon, Man., Canada.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Canada.  
Hogg & Lytle, Ltd.  
Oakwood, Ont., Canada.  
McDonald & Sons, Ltd., Kenneth  
Ottawa, Ont., Canada.  
Ewing, The Wm. Co., Ltd.  
Montreal, Que., Canada.  
Canada Seed Co., Ltd., The  
Toronto, Ont., Canada.  
Goodall, Ltd., James  
Toronto, Canada.  
Keith & Sons, Geo.  
Toronto, Canada.  
Rennie Seeds, Wm., Ltd.  
Toronto, Canada.  
Steele, Briggs Seed Co., Ltd.  
Toronto, Canada  
(See Adv. on Page 35)

#### COLORADO

Barteldes Seed Co.  
Denver, Colo.  
Rocky Mountain Seed Co.  
Denver, Colo.  
Western Seed Co.  
Denver, Colo.  
Farmers Supply Co.  
Durango, Colo.  
Grand Junction Seed Co.  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Strain Bros.  
Lamar, Colo.  
James, R. H.  
Rocky Ford, Colo.

#### CONNECTICUT

Cadwell & Jones  
Hartford, Conn.  
Woodruff & Sons, F. H.  
Milford, Conn.  
(See Adv. on Front Cover)  
Platt Co., Inc., The Frank S.  
New Haven, Conn.  
Comstock, Ferre & Co.  
Wethersfield, Conn.  
(See Adv. on Page 91)

#### FLORIDA

Shreve Seed Co.  
Chipley, Fla.  
Security Feed & Seed Co.  
Tampa, Fla.

#### GEORGIA

Athens Seed Co.  
Athens, Ga.  
(See Adv. on Page 57)  
Rowland Co., The  
Athens, Ga.  
Walton Seed Co. (Cowpeas and Soybeans)  
Augusta, Ga.



**Disco**  
**SEEDS**

**A L F A L F A**  
GRIMM, COSSACK, DAKOTA 12

STATE SEALED  
or U. S. VERIFIED ORIGIN

**SWEET CLOVER**

TALL WHITE, GRUNDY CO.,  
YELLOW, HUBAM

**SEED CORN—**

EARLY  
HARDY VARIETIES

Specializing in  
SOUTH DAKOTA AND IOWA GROWN  
SEEDS

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DAKOTA IMPROVED SEED CO.  
Mitchell, So. Dak., Emmetsburg, Iowa

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**FARM & GRASS SEEDS**

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attention.

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*QUALITY* **SEEDS**



*Wholesale*  
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**THE PAGE SEED CO., GREENE, N. Y.**

*We are carload dealers in*

COW PEAS, SOY BEANS, AUSTRIAN PEAS, VETCH, RYEGRASS

*also extensive dealers in*

CANE SEEDS, CATTAIL MILLET, SUDAN & OTHER FIELD & GRASS SEEDS

*We Specialize in*

CONCH AND CROWDER PEAS

in retail department we carry full line of Garden & Flower seeds,  
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**ATHENS SEED CO.**

**Athens, Georgia**



## WHOLESALE FIELD SEEDS—Continued

Settle & Robison (Cowpeas)  
Jackson, Ga.  
Beechwood Seed Farms  
Rome, Ga.  
Snelson Seed Co.  
Savannah, Ga.  
Barnett-Paschal Co.  
Washington, Ga.

**IDAHO**

**Idaho Grimm Alfalfa Seed Growers Assn.**  
**Blackfoot, Idaho**  
(See Adv. on Page 13)  
Central Coal & Seed Co.  
Boise, Idaho  
Union Seed & Fuel Co.  
Boise, Idaho  
Buhl Seed & Grain Co.  
Buhl, Idaho  
Pioneer Seed & Grain Co.  
Burley, Idaho  
Lilly Seed Co.  
Caldwell, Idaho  
Duthie Co.  
Lewiston, Idaho  
Means Co., Mark  
Lewiston, Idaho  
Moscow-Idaho Seed Co.  
Moscow, Idaho  
Intermountain Seed Co.  
Twin Falls, Idaho

**ILLINOIS**

Funk Bros. Seed Co.  
Bloomington, Ill.  
Vollbracht Co., Wm.  
Camp Point, Ill.  
Allied Seed Co.  
Chicago, Ill.  
American Field Seed Co.  
Chicago, Ill.  
**Dickinson Co., Albert**  
**Chicago, Ill.**  
(See Adv. on Page 132)  
Farmers National Grain Corporation  
Chicago, Ill.  
**Iroquois Seed Service**  
**Chicago, Ill.**  
(See Adv. on Page 115)  
Johnson, Inc., J. Oliver  
Chicago, Ill.  
Sun-Field Seed Service  
Chicago, Ill.  
**Schultz, J. M.**  
**Dieterich, Ill.**  
(See Adv. on Page 59)  
Keith & Son, L. J.—(Redtop)  
Fairfield, Ill.  
Ging & Co.  
Farina, Ill.  
Egyptian Seed Growers Exchange—  
(Redtop)  
Flora, Ill.  
Beebe, C. A.  
Forreston, Ill.  
Noble Bros.  
Gibson City, Ill.  
Morris Grain & Seed Co.  
Morris, Ill.  
Allied Seed Co.  
Peoria, Ill.  
Kelly Seed Co.  
Peoria, Ill.  
Eber Seed Co.  
Quincy, Ill.  
Keller & Sons, Geo.  
Quincy, Ill.  
Quincy Seed Co.  
Quincy, Ill.  
Condon Bros. Seedsmen  
Rockford, Ill.  
Pratt Seed Farms (Lespedeza)  
Roseville, Ill.  
Bastien, R. F. (Cowpeas)  
Vergennes, Ill.

**INDIANA**

**Foster-Kendall Co.**  
**Carmel, Ind.**  
**Crabbs, Reynolds, Taylor Co.**  
**Crawfordsville, Ind.**

Crawfordsville Seed Co.  
Crawfordsville, Ind.  
Heldt Co., The  
Evansville, Ind.  
McCarty Co., The J. A.  
Evansville, Ind.  
Ohio Valley Seed Co.  
Evansville, Ind.  
Purcell Seed Co.  
Evansville, Ind.  
Allied Seed Co.  
Fort Wayne, Ind.  
Hooton-Davis Seed Co.  
Lebanon, Ind.  
Scott Seed Co.  
New Albany, Ind.  
Meyer Grain Co.  
South Whitley, Ind.  
Quinlan Seed Store  
Terre Haute, Ind.  
Goodrich Bros. Co.  
Winchester, Ind.

**IOWA**

**Hamilton Seed & Coal Co.**  
**Cedar Rapids, Iowa**  
(See Adv. on Page 65)  
Council Bluffs Seed Co. (Seed Corn)  
Council Bluffs, Iowa  
**Ouren Seed Co.**  
**Council Bluffs, Iowa**  
(See Adv. on Page 59)  
Scofield Co., Roy A.  
Council Bluffs, Iowa  
Younkerman Seed Co.  
Council Bluffs, Iowa  
**Davenport Seed Co.**  
**Davenport, Iowa**  
(See Adv. on Page 39)  
Standard Seed Co.  
Des Moines, Iowa  
Dubuque Seed Co.  
Dubuque, Iowa  
**Dakota Improved Seed Co.**  
**Emmetsburg, Iowa**  
(See Adv. on Page 57)  
**Northwestern Seed Co.**  
**Keokuk, Iowa**  
(See Adv. on Page 59)  
Nishna Valley Seed Co. (Seed Corn)  
Shenandoah, Iowa  
**Sioux City Seed Co.**  
**Sioux City, Iowa**  
(See Adv. on Pages 73 and 95)  
Wertz Seed Co.  
Sioux City, Iowa

**KANSAS**

Assaria Hardware Co.  
Assaria, Kan.  
Mangelsdorf & Co., F. A.  
Atchison, Kan.  
Frazier's Seed Store  
Coffeyville, Kan.  
Bowman Seed Co.  
Concordia, Kan.  
Union Seed Warehouse  
Kirwin, Kan.  
Barteldes Seed Co.  
Lawrence, Kan.  
Northwestern Seed House  
Oberlin, Kan.  
Henning Seed Co.  
Salina, Kan.  
Salina Produce Co.  
Salina, Kan.  
Salina Seed Co.  
Salina, Kan.  
Sedgwick Alfalfa Mills  
Sedgwick, Kan.  
Alfalfa Valley Seed Co.  
Stafford, Kan.  
Coe Seed & Grain Co., D. O.  
Topeka, Kan.  
Ross Bros. Seed Co.  
Wichita, Kan.

**KENTUCKY**

Kentucky Lespedeza Growers Assn., Inc.  
Eminence, Ky.  
Kentucky-Tennessee Sericea Assn.  
Fulton, Ky.



# WHOLESALE FIELD SEEDS

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CLOVERS  
SOY BEANS  
COW PEAS  
CARLOTS OR LESS

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**GROWING**  
TIMOTHY, CLOVERS  
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WESTERN GROWN  
**Kentucky Blue Grass**

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## WHOLESALE FIELD SEEDS—Continued

**Cayce-Yost Co. (Lespedeza)**

Hopkinsville, Ky.

**Brent Seed Co., The C. S.**

Lexington, Ky.

(See Adv. on Page 39)

**Chambers Seed Co.**

Louisville, Ky.

**Hall Seed Co.**

Louisville, Ky.

**Lewis Implement & Seed Co.**

Louisville, Ky.

**Louisville Seed Co.**

Louisville, Ky.

(See Adv. on Page 61)

**Ross Seed Co.**

Louisville, Ky.

(See Adv. on Page 39)

**Watts, Owen T.**

Louisville, Ky.

(See Adv. on Page 31)

**Meacham, Chas. M., Jr. (Lespedeza)**

Morganfield, Ky.

**Yopp Seed Co.**

Paducah, Ky.

**Brent & Co., Inc.**

Paris, Ky.

**Spears & Sons, Woodford**

Paris, Ky.

**Spears-Kiser Co.**

Paris, Ky.

**Wilson, Jas. S.**

Paris, Ky.

**Walters & Thompson**

Shelbyville, Ky.

**Kentucky Blue Grass Seed Growers Cooperative Assn.**

Winchester, Ky.

**Mahan Co.**

Winchester, Ky.

**LOUISIANA****Beridon, Jr., E. J.**

Hamburg, La.

(See Adv. on Page 23)

**Bacque Seed Co.**

Lafayette, La.

**Coco & Roy Seed Co. (White Clover)**

Moreauville, La.

**Reuter Seed Co., Inc.**

New Orleans, La.

**Kalmbach-Burckett Co., Inc.**

Shreveport, La.

**Wilson Seed Co., Lane**

Shreveport, La.

**MARYLAND****Belt Seed Co.**

Baltimore, Md.

**Blamberg Bros., Inc.**

Baltimore, Md.

(See Adv. on Page 23)

**Scarlett & Co., Wm. G.**

Baltimore, Md.

(See Adv. on Page 40)

**MASSACHUSETTS****Breck & Sons Corp., Jos.**

Boston, Mass.

**Dickinson Co., The Albert**

Boston, Mass.

(See Adv. on Page 132)

**Emerson Co., Thos. W.**

Boston, Mass.

**Ross Bros. Co.**

Worcester, Mass.

**MICHIGAN****King & Sons, H. C.**

Battle Creek, Mich.

(See Adv. on Page 27)

**Brown Seed Co., Alfred J.**

Grand Rapids, Mich.

(See Adv. on Page 11)

**Isbell Seed Co.**

Jackson, Mich.

(See Adv. on Page 27)

**McLaughlin Ward & Co.**

Jackson, Mich.

**MINNESOTA****Farmer Seed & Nursery Co.**

Faribault, Minn.

(See Adv. on Page 115)

**Archer-Daniels-Midland Co. (Seed Oats)**

Minneapolis, Minn.

**Dickinson Feed & Seed Co.**

Minneapolis, Minn.

**Farm Service Stores, Inc.**

Minneapolis, Minn.

**Land O'Lakes Creameries, Inc. (Sweet Clover)**

Minneapolis, Minn.

**Minneapolis Seed Co.**

Minneapolis, Minn.

(See Adv. on Page 61)

**Northrup, King & Co.**

Minneapolis, Minn.

(See Adv. on Page 5)

**Moorhead Farmers Elevator Co.**

Moorhead, Minn.

**Thief River Falls Seed House**

Thief River Falls, Minn.

**Peterson-Biddick Co.**

Wadena, Minn.

**Dill Co., J. G.**

Wabasha, Minn.

**Northern Field Seed Co.**

Winona, Minn.

**MISSISSIPPI****Rose Seed Co.**

Clarksdale, Miss.

**Pace Seed & Supply Co.**

Cleveland, Miss.

**Williams Co., P. P.**

Vicksburg, Miss.

**Harris Seed & Feed Co.**

Yazoo City, Miss.

**MISSOURI****Adams Seed Co., T. Lee**

Kansas City, Mo.

(See Adv. on Page 41)

**Bagnall, Howard E.**

Kansas City, Mo.

**Peppard Seed Co.**

Kansas City, Mo.

**Rudy-Patrick Seed Co.**

Kansas City, Mo.

(See Adv. on Page 39)

**Maupin Seed Co.**

King City, Mo.

**Chesmore Seed Co.**

St. Joseph, Mo.

**Kellogg-Kelly Seed Co.**

St. Joseph, Mo.

(See Adv. on Page 61)

**Mitchellhill Seed Co.**

St. Joseph, Mo.

**Corneli Seed Co.**

St. Louis, Mo.

(See Adv. on Page 25)

**Mangelsdorf & Bro., Ed. F.**

St. Louis, Mo.

(See Adv. on Page 13)

**Prunty Seed & Grain Co.**

St. Louis, Mo.

**St. Louis Seed Co.**

St. Louis, Mo.

**Scott, T. Maurice**

St. Louis, Mo.

(See Adv. on Page 61)

**Springfield Seed Co.**

Springfield, Mo.

**Wood-Beazley Seed Co.**

Springfield, Mo.

**MONTANA****Elliott Seed Co.**

Billings, Mont.

**Northern Montana Alfalfa Growers' Assn**

Glasgow, Mont.

**Barkemeyer Seed Co.**

Great Falls, Mont.

**State Nursery & Seed Co.**

Helena, Mont.

**Phillips County Cooperative Marketing Assn. (Grimm and Ladak Alfalfa)**

Malta, Mont.



# Wholesale Field Seeds

WE SPECIALIZE IN  
**HARDY**  
NORTHERN GROWN

SWEET CLOVER

RED CLOVER

ALSIKE

TIMOTHY

SEED GRAIN

Samples on Request

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SEED CO.**

MINNEAPOLIS, MINN.

# Kellogg-Kelly Seed Co.

*Specialists in*

**NEW CROP**

Missouri Grown — Kentucky

# Blue Grass

*of higher quality*

We do our own

Harvesting

Threshing

Cleaning

*Samples and prices on request*

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Gold Medal  
**FIELD SEEDS**

REDTOP, ORCHARD AND KENTUCKY  
BLUE GRASS; ALL CLOVERS; TIMOTHY;  
MILLET; SOY BEANS; ETC. LAWN  
GRASS SEED; SEED MIXTURES

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LOUISVILLE, KY.

**"PERSONALIZED SEED SERVICE TO WHOLESALERS"**

**T. MAURICE SCOTT**

CAR LOT ORIGINATOR

SOY BEANS

TIMOTHY

LESPEDeza

COW PEAS

RED TOP

SUDAN

FIELD SEEDS

MAIN 2007

**ST. LOUIS, MO.**

419 MERCHANTS EXCH.



## WHOLESALE FIELD SEEDS—Continued

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Miles City, Mont.  
Northland Seed Co.  
Sidney, Mont.

**NEBRASKA**

Bonahoom Seed Co.  
Hastings, Neb.  
**Griswold Seed & Nursery Co.**  
Lincoln, Neb.  
(See Adv. on Page 65)  
Carberry Seed Co.  
Norfolk, Neb.  
Allied Seed Co.  
Omaha, Neb.  
**Nebraska Seed Co.**  
Omaha, Neb.  
(See Adv. on Page 9)  
Campbell, Henry  
Seward, Neb.  
Bowman Seed Co., The  
Superior, Neb.

**NEW HAMPSHIRE**

Varick Co., Jno. B.  
Manchester, N. H.

**NEW JERSEY**

Doughten Seed Co., The  
Jersey City, N. J.

**NEW MEXICO**

Mitchell, E. W.  
Roswell, N. Mex.

**NEW YORK**

Conklin-Sullivan Co.  
Binghamton, N. Y.  
Cone, Arthur R.  
Buffalo, N. Y.  
**Craver-Dickinson Seed Co.**  
Buffalo, N. Y.  
(See Adv. on Page 13)  
Harvey Seed Co.  
Buffalo, N. Y.  
Stanford Seed Co.  
Buffalo, N. Y.  
Whitney-Eckstein Seed Co.  
Buffalo, N. Y.  
**Page Seed Co.**  
Greene, N. Y.  
(See Adv. on Page 57)  
**Dickinson Co., The Albert**  
New York, N. Y.  
(See Adv. on Page 132)  
**Duryea Seed Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Loechner & Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 83)  
**Loewith, Inc., Julius**  
New York, N. Y.  
(See Adv. on Page 63)  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Radwaner Seed Co., I. L.**  
New York, N. Y.  
(See Adv. on Page 63)  
Stumpp & Walter Co.  
New York, N. Y.  
**Williamson, Garfield**  
New York, N. Y.  
(See Adv. on Page 92)  
Gardner Seed Co.  
Rochester, N. Y.

**NORTH CAROLINA**

Asheville Seed Co.  
Asheville, N. C.  
Brabham Seed Co.  
Charlotte, N. C.  
Buxton White Seed Co.  
Elizabeth City, N. C.  
Wyatt & Sons Co., Job P.  
Raleigh, N. C.  
Blount-Midyette & Co., Inc. (Soybeans)  
Washington, N. C.

Roudabush's Seed Store  
Wilmington, N. C.

**NORTH DAKOTA**

Dacotah Seed Co.  
Bismarck, N. D.  
Goldberg Seed & Feed Co.  
Fargo, N. D.  
**Interstate Seed & Grain Co.**  
Fargo, N. D.  
(See Adv. on Page 41)  
Magill & Co. (Operating Fargo Seed House)  
Fargo, N. D.  
**Newday Seeds, Inc. (Sweet Clover)**  
Fargo, N. D.  
(See Adv. on Page 25)  
Grand Forks Seed Co.  
Grand Forks, N. D.  
Aney Seed & Nursery Co., Roy  
Minot, N. D.  
Valker-Christensen Co.  
Minot, N. D.

**OHIO**

Healy Seed Co.  
Belle Center, Ohio  
**Market Gardeners' Seed Co.**  
Cincinnati, Ohio  
(See Adv. on Page 63)  
**McCullough Seed Co., The J. Chas.**  
Cincinnati, Ohio  
(See Adv. on Page 65)  
**McCullough's Sons Co., The J. M.**  
Cincinnati, Ohio  
(See Adv. on Page 63)  
Botzum Bros. Seed Co.  
Cleveland, Ohio  
Livingston Seed Co.  
Columbus, Ohio  
Hoyt Co., The A. C.  
Fostoria, Ohio  
**O. & M. Seed Co.**  
Green Springs, Ohio  
(See Adv. on Page 115)  
Eikenberry Bros. Co.  
Hamilton, Ohio  
**Ackerman Company**  
Lima, Ohio  
(See Adv. on Page 27)  
**Scott & Sons Co., O. M.**  
Marysville, Ohio  
(See Adv. on Page 31)  
Cover Seed Co., U. J.  
Mt. Gilead, Ohio  
Ingersoll Co., The Chas. M.  
Rocky River, Ohio  
Brown Seed Co.  
St. Paris, Ohio  
Flower Co. & Co., S. W.  
Toledo, Ohio  
**Hirsch & Sons, Henry**  
Toledo, Ohio  
(See Adv. on Page 7)

**OKLAHOMA**

Chickasha Seed Growers Co.  
Chickasha, Okla.  
Muskogee Seed House  
Muskogee, Okla.  
Clarke & Keller Seed Store  
Shawnee, Okla.  
Binding-Stevens Seed Co.  
Tulsa, Okla.

**OREGON**

Albany Seed Co.  
Albany, Ore.  
(See Adv. on Page 41)  
Senders & Co., M.  
Albany, Ore.  
Engbretson Seed Co. (Bent Grass)  
Astoria, Ore.  
Hand Seed Co., Inc., A. M.  
Portland, Ore.  
**Lilly Co., The Chas. H.**  
Portland, Ore.  
(See Adv. on Page 79)



# Wholesale FIELD AND GARDEN SEEDS

The Market  
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266 Eggleston Avenue  
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THE J. M. McCULLOUGH'S SONS CO.

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*Tested Seeds*

"Headquarters"

COOS SEASIDE AND  
ASTORIA BENT

VELVET BENT

GERMAN BENT

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PRINCE EDWARD ISLAND BENT  
FESCUES

POA TRIVIALIS

KENTUCKY BLUE GRASS

RED TOP

WHITE CLOVER

also Bird Seed

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SPECIALIZING IN ALL IMPORTED  
CLOVER—GRASS, FIELD, FOREST TREE SEEDS

REPRESENTING THE LARGEST & MOST RELIABLE  
FOREIGN SHIPPERS FOR THE LAST 25 YEARS

RAFFIA—NATURAL AND DYED

GREEN RAFFIA GRASS MATS FOR WINDOW DISPLAY

IMPORTED PEAT MOSS

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WE SPECIALIZE IN

Red Clover

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Alsike Clover

Timothy

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Bent Grasses

Fescues

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## WHOLESALE FIELD SEEDS—Continued

North Coast Seed Co.  
Portland, Ore.  
Portland Seed Co.,  
Portland, Ore.  
**Jenks White Seed Co.**  
Salem, Ore.  
(See Adv. on Page 25)

**PENNSYLVANIA**

Schell, Inc., Walter S.  
Harrisburg, Pa.  
Allied Seed Co.  
Philadelphia, Pa.  
Atlantic Seed Co.  
Philadelphia, Pa.  
**Philadelphia Seed Co. (Fancy Grasses)**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Dickinson Co., The Albert**  
Pittsburgh, Pa.  
(See Adv. on Page 132)

**RHODE ISLAND**

Barrett Co., The W. E.  
Providence, R. I.

**SOUTH CAROLINA**

Mixson Seed Co., Inc., W. H.  
Charleston, S. C.  
Caughman Feed & Seed Co.  
Columbia, S. C.  
Kirkland Seed Co., B. B.  
Columbia, S. C.  
**Shuler & Smoak**  
Orangeburg, S. C.  
(See Adv. on Page 29)

**SOUTH DAKOTA**

Sexauer & Son, George P.  
Brookings, S. D.  
**Dakota Improved Seed Co.**  
Mitchell, S. D.  
(See Adv. on Page 57)  
Western South Dakota Alfalfa Seed Grow-  
ers Exchange  
Rapid City, S. D.  
**Sioux City Seed Co.**  
Sioux Falls, S. D.  
(See Adv. on Pages 73 and 95)  
McMahon, M. A.  
Sturgis, S. D.

**TENNESSEE**

Largen Lespedeza Co.  
Fayetteville, Tenn.  
Coats, W. J.  
Greenfield, Tenn.  
London Hardware Co.  
Johnson City, Tenn.  
Mayo, D. R.  
Knoxville, Tenn.  
Security Mills  
Knoxville, Tenn.  
Buchanan Seed Co., R. B.  
Memphis, Tenn.  
Cook, L. P.  
Memphis, Tenn.  
Fidelity Seed Co.  
Memphis, Tenn.  
Russell-Heckle Seed Co.  
Memphis, Tenn.  
Dobson-Hicks Co.  
Nashville, Tenn.

**TEXAS**

Roberts Grain Co.  
Amarillo, Texas  
Eastern Seed Co.  
Corpus Christi, Texas  
Hardie Seed Co., David  
Dallas, Texas  
Magnolia Seed Co.  
Dallas, Texas  
Nicholson Seed Co., Robert  
Dallas, Texas  
Ferguson Seed Farms  
Howe, Texas

Acme Seed Co.  
Lubbock, Tex.  
Cone Grain & Seed Co., S. E.  
Lubbock, Texas  
Satex Seed Co.  
San Antonio, Tex.  
Staffel Co., Ferd.  
San Antonio, Tex.  
Martin-Lane Co.  
Vernon, Texas  
Ruhman Grain & Seed Co.  
Waco, Tex.

**UTAH**

Bailey & Sons Co.  
Salt Lake City, Utah  
Kelly-Western Co.  
Salt Lake City, Utah  
**Occidental Seed Co.**  
Salt Lake City, Utah  
(See Adv. on Page 65)  
Westland Seed Co.  
Salt Lake City, Utah

**VERMONT**

Middlebrook & Sons, J. C.  
Burlington, Vt.

**VIRGINIA**

Gleason & Co., H. M.  
Charlottesville, Va.  
Smith Seed & Feed Co.  
Danville, Va.  
Wetsel Seed Co.  
Harrisonburg, Va.  
Grossman & Son, W.  
Petersburg, Va.  
Boehling & Co., F. H.  
Richmond, Va.  
**Carter-Venable Co., Inc., The (Soybeans,**  
**Eureka Corn)**  
Richmond, Va.  
Diggs & Beadles Seed Co.  
Richmond, Va.  
Wood & Sons, T. W.  
Richmond, Va.

**WASHINGTON**

Farley Seed Co.  
Bellingham, Wash.  
Skagit Seed Co.  
Mount Vernon, Wash.  
Zeb Seed Co.  
Mount Vernon, Wash.  
**Lilly Co., Chas. H.**  
Seattle, Wash.  
(See Adv. on Page 79)  
Northern Seed Growers  
Seattle, Wash.  
Northwest Seed Co.  
Seattle, Wash.  
Seattle Seed Co.  
Seattle, Wash.  
Spokane Seed Co.  
Spokane, Wash.

**WISCONSIN**

Osen Milling Co.  
DePere, Wis.  
Wells Milling Co., A. G.  
DePere, Wis.  
Henry Michels Seed Co.  
Fond du Lac, Wis.  
Olds Seed Co., L. L.  
Madison, Wis.  
Standard Seed Co.  
Madison, Wis.  
Courteen Seed Co.  
Milwaukee, Wis.  
**Crossland, W. H.**  
Milwaukee, Wis.  
(See Adv. on Page 57)  
Kellogg Seed Co.  
Milwaukee, Wis.  
Teweles Seed Co., L.  
Milwaukee, Wis.  
**Cochrane Co., T. H.**  
Portage, Wis.



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FANCY GRASSES

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**RED TOP  
BLUEGRASS  
MEADOW FESCUE  
TIMOTHY  
CLOVERS**

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## Hamilton Seed and Coal Co.

Cedar Rapids, Iowa



Wholesale Dealers

**TIMOTHY-ALSIKE-RED CLOVER-ALFALFA**

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● VERIFIED ORIGIN

NEBRASKA — DAKOTA 12 — GRIMM ALFALFA — KANSAS COMMON  
SOUTH DAKOTA GROWN

SWEET CLOVER :: SUDAN :: CANE :: MILLET

CAR LOTS OR LESS

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LINCOLN, NEBRASKA

## Occidental Seed Company

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U. S. Verified Origin Common Alfalfa and  
Medium Clover. State Certified Sealed and  
Tagged Grimm Alfalfa, Affidavit Grimm, Alfalfa,  
Sweet Clover, Alsike and Grasses.

Carlots, straight or mixed



## FOREIGN FIELD SEEDS

### ARGENTINE REPUBLIC

Aron & Destefanis  
Buenos Aires, Argentine  
Bridger & Co.  
Buenos Aires, Argentine  
Crawford, Keen & Co.  
Buenos Aires, Argentine

### AUSTRALIA

Anderson & Co., Ltd.  
Sydney, N. S. W., Australia  
Austraseed Traders, Ltd.  
Sydney, Australia  
Brunnings Pty. Ltd., F. H.  
Melbourne, Australia  
Clements & Marshall, Ltd.  
Devonport, Tas., Australia  
Denhams, Pty., Ltd.  
Brisbane, Queensland, Australia  
Farmer & Co., Pty., Ltd.  
Melbourne, Australia  
Foster & Sons, Ltd.  
Sydney, Australia  
Gippsland & Northern Co-op Co., Ltd.  
Melbourne, Australia  
Harrap & Son, Ltd., Alfred  
Launceston, Tas., Australia  
Hillsdon Watts, Ltd.  
Mascot, Sydney, Australia  
Jackson & Co. Pty., Ltd., J.  
Brisbane, Queensland, Australia  
Law, Somner & Co.  
Melbourne, Australia  
Peterson Bros. & Craig, Ltd.  
Brisbane, Queensland, Australia  
Railton, James  
Melbourne, Vic., Australia  
River Don Trading Co., Ltd.  
Devonport, Tas., Australia  
Secombe, W.  
Coff's Harbour, N. S. W., Australia  
Shepherd & Sons, Ltd.  
Sydney, Australia  
South Australian Farmers Co-op. Ltd.  
Adelaide, S. A., Australia  
Watter & Son Pty., Ltd.  
Melbourne, Australia  
Webb & Co., Ltd.  
Devonport, Tas., Australia  
Webster & Sons, A. G.  
Hobart, Tas., Australia  
Westralian Farmers Co-op., Ltd.  
Perth, Australia  
Yates & Co., Ltd., Arthur  
Sydney, N. S. W., Australia

### AUSTRIA

Gebruder, Boschan  
Vienna, Austria  
Hernfeld, Adolph  
Vienna, Austria

### BELGIUM

Bloucke & Fils  
Ostende, Belgium  
Cornelius, A. & C.  
Arlon, Belgium

### CHINA

Manshu Nosan Shokai, Inc.  
Dairen, South Manchuria, China

### CZECHO SLOVAKIA

Arnost Bahlsen  
Prague, Czecho Slovakia  
Donat & Schuftan  
Prague, Czecho Slovakia  
Hollander, Jakob  
Kosice, Czecho Slovakia  
Loewenthal Brothers  
Brno, Czecho Slovakia  
Sachsel & Sons, E.  
Prague, Czecho Slovakia  
Schon, Jacob S., Ltd.  
Brno, Czecho Slovakia

### DANZIG

Handelsverband G.m.b.H.  
Danzig

(See Adv. on Page 69)

"Nasiona" Landw. Handelsges, m.b.H.  
Langermarkt No. 1, Danzig  
(See Adv. on Page 69)

### DENMARK

Daehnfeldt, L., & Theodor Jensen  
Odense, Denmark

(See Adv. on Page 97)

Danielsen & Larsen, Ltd., E.

Nakskov, Denmark

Dansk Frokultur, A/S

Kerteminde, Denmark

Dreyer, Fr.

Aarhus, Denmark

Hartmann & Co., Hjalmar  
Copenhagen, Denmark

(See Adv. on Page 83)

Hertz' Frokompagni A/S

(See Adv. on Page 83)

Copenhagen, Denmark

Jensens Eftf A/S, Jorgen

Copenhagen, Denmark

Morso Fro Kontor

Nykobing Mors, Denmark

Nordisk Fro Kontor

Copenhagen, Denmark

Olsen, Chr. A/S

Odense, Denmark

(See Adv. on Page 87)

Ostergaards Froavl

Stensballe, Horsens, Denmark

Simested, M.

Holstebro, Denmark

Stallknecht & Meyer

Copenhagen, Denmark

Trifolium A/S

Copenhagen, Denmark

Veit, Simon

Copenhagen, Denmark

### ENGLAND

Burlingham, G., & Sons, Ltd.  
Bury St. Edmunds, England  
Dunns Farm Seeds, Ltd.  
Salisbury, England  
Eastes & Loud  
Ashford, Kent, England  
Eastern Counties Farmers' Co-Operative  
Assn., Ltd.  
Ipswich, England  
Gascoyne Son & Buckland  
Worcester, England  
Goldsmith Bros., Ltd.  
Bury St., Edmunds, England  
Hasler & Co., Ltd.  
Dunmow, Essex, England  
Hurst & Son  
London, England  
Johnson & Son, Ltd., W. W.  
Boston, England  
Le May & Co., C. W.  
London, England  
McMaster & Frankish  
Seething Lane, London, England  
Pope & Chapman, Ltd.  
Bishop's Stortford, England  
Whalley, Ltd., Thomas  
Liverpool, England  
Woods, Sadd, Moore & Co., Ltd.  
London, Norfolk, England

### ESTHONIA

Esthonian Seed Co.  
Tallinn, Esthonia  
Tonisson & Bros.  
Tartu, Esthonia

### FRANCE

Beillard, Frederic  
Le Mans, Sarthe, France  
Bernard, Paul  
Avignon, Vaucluse, France  
Blain, Felix  
St. Remy de Provence, France  
Cherot, Michel (broker)  
Choisy-le-Roi, Seine, France  
Cretin, L., & Co.  
Charlieu, Loire, France



## FOREIGN FIELD SEEDS—Continued

Desjobert & Fils, E.  
Moulins, Allier, France  
Galabert, Fnd.  
Caussade (Tarn-et-Garonne), France  
Godineau, R.  
Angers, Maine & Loire, France  
Guignard, A.  
Tours, France  
Legrand, Paul  
Moulins, Allier, France  
Les Fils de Labbe Leplatre  
Orleans, Loiret, France  
Loras Cyprien  
Lyon, Rhone, France  
Palisse, H.  
Chateauroux, Indre, France  
Plan  
Montelimar, Drome, France  
Planchard, Cayla & Co.  
Paris, France  
Rousset & Fils  
Paris, France  
Salmon, Maurice (broker)  
Paris, France  
Simon Louis Freres & Cie  
Bruyeres-le-Chatel (Seine-et-Oise),  
France  
Societe d'Exportation des Graines de  
Provence  
Graveson, France  
Tezier Freres  
Valence-Sur-Rhone, France  
Zidranski, Charles (Broker)  
Paris, France

## GERMANY

Appel, Conrad  
Darmstadt, Germany  
Becker, Hch. A.-G.  
Heilbronn A. N., Germany  
Bitterhoff, Sohn, August  
Berlin, Germany  
Boettcher, Jun., Otto  
Gross-Tabarz (Thuer.), Germany  
Boettcher & Voelcker  
Tabarz in Thuringen, Germany  
Boettcher, Inc., Otto  
Tabarz in Thuringen, Germany  
Bruhn, D. P., G.m.b.h.  
Kiel, Germany  
Christensen, V. L.  
Erfurt, Germany  
DeWit, John (broker)  
Hamburg, Germany  
Ernst und von Spreckelsen  
Hamburg, Germany  
Fiegel, Benno  
Berlin, Germany  
Friedebergs Wive, Gustav  
Stettin, Germany  
Funk & Kerstan  
Stettin, Germany  
Ganzer & Spiessbach  
Halle, Saale, Germany  
Gebruder Dippe, A. G.  
Quedlinburg, Germany  
Gebruder Kallmeyer, A. G.  
Erfurt, Germany  
Geucke, Rudolf  
Hamburg, Germany  
Haage, Franz Anton  
Erfurt, Germany  
Karkutsch & Co.  
Stettin, Germany  
Keller Sohn, Heinrich  
Darmstadt, Germany  
Kloster, A. P.  
Flensburg, Germany  
Knoll, K.  
Bamberg, Germany.  
Le Coq & Co., A. G., A.  
Darmstadt, Germany  
Liefmann'Sohne Nachf, R.  
Hamburg, Germany  
Metz & Co.  
Berlin-Steglitz, Germany  
Müller & Co., D.  
Hamburg, Germany

Noth, Jr., Johs  
Fishbach (Gotha), Germany  
Nungesser, L. C.  
Griesheim near Darmstadt, Germany  
Pehle & Beckmann  
Leer in Ostfriesland, Germany  
Robra, Carl  
Aschersleben, Germany  
Sachs, David  
Quedlinburg, Germany  
Schott, Gustav  
Aschaffenburg, Germany  
Steingaesser & Co., G. J.  
Milteneberg, Bavaria, Germany  
Weise & Pfaffe  
Halle, Germany  
Wissinger, G.m.b.H., A. & W.  
Berlin, Germany  
Zuelzer, Gustav  
Hamburg, Germany

## HOLLAND

Barenbrug's Zaadhandel  
Arnhem, Holland  
Busgers, W. E. & Co.  
Arnhem, Holland  
DeGroot, Van Nes & Co.  
Rotterdam, Holland  
Hermans, J. B.  
Maasbracht, Holland  
Hommo Ten Have's Seed Co.  
Scheemda, Holland  
Nederlandsche Elite Zaad Maatschappij  
(Sugar Beet)  
Hillegom, Holland  
Oudyk, Gebr.  
Waddinxveen, Holland  
Poortman, A.  
Rotterdam, Holland  
Robertus, Ltd., J. L.  
Winschoten, Holland  
Zwaan & de Wiljes Seed Co., Inc.  
Scheemda, Holland.

## HUNGARY

Fekete Brothers: Wholesale Seed  
Merchants Co., Ltd.  
Budapest, Hungary  
Hungarian Seed Culture Co., Ltd.  
Budapest, Hungary  
Mauthner, Ltd., Edmund  
Budapest, Hungary  
Tibor, Kemeny  
Budapest, Hungary  
(See Adv. on Page 69)

## INDIA

American Seed & Nursery Co.  
Lahore, India  
Sulabh Nursery & Seed Co. (Jute Seed)  
Calcutta, India

## IRELAND

Coburn & Son, Jas.  
Banbridge, Ireland  
McCausland, Samuel  
Belfast, Ireland  
McClinton & Co.  
Belfast, Ireland  
Morton, Jos.  
Banbridge, Ireland

## ITALY

Fasolo, Angelo  
Bologna, Italy  
Pini, Ernesto  
Bologna, Italy  
Sgaravatti Bros.-Sementi  
Padova, Italy

## JAPAN

Sancho Schoten  
Bandaio, Yokohama, Japan

## JUGOSLAVIA

Jankomir d. d.  
Zagreb, Croatia  
Sjeme  
Osijek, Slovenia



## FOREIGN FIELD SEEDS—Continued

Teply, B.  
Zagreb, Croatia  
Todor Mraovic i Drug,  
Belgrade, Serbia

## LATVIA

Jacobowitz, Ltd., Heyman  
Riga, Latvia  
Jachmann, R.  
Riga, Latvia

## NEW ZEALAND

Canterbury Seed Co., Ltd.  
Christchurch, New Zealand  
Cooper, F. Ltd.  
Wellington, New Zealand  
Dalgety & Company, Ltd.  
Christchurch, New Zealand  
Montgomery & Co., J.  
Christchurch, New Zealand  
Murray, Roberts & Coy, Ltd.  
Dunedin, New Zealand  
National Mortgage & Agency Co. of New  
Zealand, Ltd.  
Dunedin, New Zealand  
Nimmo & Blair, Ltd.  
Dunedin, New Zealand  
Paterson & Co., A. S.  
Dunedin, New Zealand  
(See Adv. Below)  
Wright, Stephenson & Co., Ltd.  
Wellington, New Zealand  
Yates & Co., Arthur  
Auckland, New Zealand

## NORWAY

Bauman, Jos.  
Oslo, Norway  
Faelleskjopet  
Oslo, Norway  
Faelleskjopet  
Trondheim, Norway  
Grimstad Gartneri  
Grimstad, Norway  
Michelet, A.  
Oslo, Norway  
Norsk Froforsyning, A. S.  
Hamar, Norway  
Norsk Fro., A. S.  
Oslo, Norway  
Rogalands Faelleskjop  
Stavanger, Norway  
Vestlandske Kjolpelag  
Bergen, Norway

## POLAND

Buszczynski & Sons, K.  
Warsaw, Poland  
Spira, David  
Krakow, Poland

## SCOTLAND

Bell Ltd., David  
Leith, Scotland  
Cross Seed Co., Ltd., Alexander  
Glasgow, Scotland  
Donaldson & Co., Ltd., John  
Edinburgh, Scotland  
Lawson & Son, Ltd., Peter  
Edinburgh, Scotland

## SOUTH AFRICA

Starke & Co., Ltd.  
Mowbray, Capetown. South Africa

## SPAIN

Moderno Cultivador  
Barcelona, Spain

## SWEDEN

Allmanna Svenska Utsadesaktiebolaget  
Svalof, Sweden  
Bjorkmann, Eftr. Aktiebolaget, A. & Co.'s  
Stockholm, Sweden  
Engstrom Aktiebolaget, Carl  
Eslof, Sweden  
Hallands Frokontor, Aktiebolaget  
Getinge, Sweden  
Holmberg Aktiebolaget, Algot & Son  
Norrkoping, Sweden  
Olson Aktiebolag, Otto J., & Sons  
Hammenhog, Sweden  
Skane-Hallands Utsades A-B.  
Helsingborg, Sweden  
Weibull Aktiebolaget, W.  
Landskrona, Sweden

## SWITZERLAND

Haubensak Sohne, Friedr.  
Basel, Switzerland  
Mauser, Emil  
Zurich, Switzerland  
Muller & Cie, E., S-A.  
Zurich, Switzerland  
Schweizer & Cie  
Thun, Switzerland  
Vatter, G. R.  
Bern, Switzerland  
Verband Ostschweiz. Landwirt.  
Genossenschaften  
Winterthur, Switzerland



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Established 1890

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Brown Top (Colonial Bent) (Gov't. Certified)

Ryegrass

Chewings Fescue

Rescue Grass

Crested Dogstail

Clovers

Yarrow

Garden and Field Peas, etc.

Horse Beans







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TIBOR**

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Seed Merchant

BUDAPEST. V.  
[Hungary]  
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Codes: ABC 5th & 6th.



Specialties:

All kind of Clover Seeds, Hairy  
Vetch, Winter Peas, Spring Vetch,  
Winter Rape, Sunflower Seeds,  
Bird Foods.

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QUALITY  
*Seeds*

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CABBAGE  
AND ALL OTHER  
VEGETABLE  
AND FLOWER

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1804

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SEED GROWERS  
COPENHAGEN-DENMARK

CABLE ADDRESS: OHLSENSENKE, COPENHAGEN

## NASIONA'S POLISH WHITE CLOVER

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We export likewise Polish Red Clover, Spring Vetch,  
Hairy Vetch, Dwarf Essex Rape, Bird Rape or Rueb-  
sen, Poppy Seed, Mustard Seed and Buckhorn.

**WHOLESALE ONLY!**

**N A S I O N A**

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D A N Z I G**

**b e s t s o u r c e f o r P o l i s h s e e d s**

*Specialties:*

**WHITE CLOVER, Red Clover, Poppy Seed, Mustard Seed,  
Dwarf Essex Rape and Sweet Bird Rape**

*Write for quotations before placing your order*



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## ALABAMA

Shreve & Son  
Andalusia, Ala.  
Birmingham Seed Co.  
Birmingham, Ala.  
Pharr Co., King (Okra)  
Catherine, Ala.  
Poyner Seed Co.  
Dothan, Ala.  
Wind & Co., I.  
Huntsville, Ala.  
Van Antwerp Seed Co.  
Mobile, Ala.

## ARKANSAS

Lee, Arthur G.  
Fort Smith, Ark.  
Bass-Isgrig Seed Co.  
Little Rock, Ark.  
Cochran Co., H. K.  
Little Rock, Ark.  
Texarkana Seed House,  
Texarkana, Ark.  
Word Seed Store  
Texarkana, Ark.

## CALIFORNIA

Fish, Henry Berrien Seedsmen (Beans)  
Carpinteria, Calif.  
(See Adv. on Page 71)  
Bodger Seeds, Ltd.  
El Monte, Los Angeles County, Calif.  
(See Adv. on Page 33)  
Aggeler & Musser Seed Co., Inc.  
Los Angeles, Calif.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
(See Adv. on Page 161)  
Southern California Seed Co.  
Los Angeles, Calif.  
Lagomarsino & Sons, F.  
Sacramento, Calif.  
(See Adv. on Page 34)  
Kellogg Seed Co. of California  
Salinas, Calif.  
Bertrand Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 79)  
Ferry-Morse Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 76)  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
(See Adv. on Page 71)  
Pacific Seed Co.  
San Francisco, Calif.  
Sherwood Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 47)  
Haven Seed Co. (Tomatoes)  
Santa Ana, Calif.  
(See Adv. on Page 77)  
McCrea Seed Co.  
Santa Barbara, Calif.  
(See Adv. on Page 75)  
Hedrick & Sweetland  
Santa Paula, Calif.  
(See Adv. on Page 79)  
Paramount Seed Co.  
Stockton, Calif.  
(See Adv. on Page 23)  
Standard Seed Farms Co.  
Stockton, Calif.  
(See Adv. on Page 100)

## CANADA

McKenzie Co., Ltd., A. E.  
Brandon, Manitoba, Can.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Can.  
Ewing, The Wm. Co., Ltd.  
Montreal, Quebec  
Keith & Sons, Geo.  
Toronto, Canada  
Rennie Seeds, Ltd., Wm.  
Toronto, Canada

Steele, Briggs Seed Co., Ltd.  
Toronto, Canada  
(See Adv. on Page 35)

## COLORADO

Barteldes Seed Co.  
Denver, Colo.  
Colorado Seed Co.  
Denver, Colo.  
Rocky Mountain Seed Co.  
Denver, Colo.  
Simpson Seed & Floral Co.  
Denver, Colo.  
Western Seed Co.  
Denver, Colo.  
Grand Junction Seed Co.  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Balcom Seed Co.  
Greeley, Colo.  
Burrell Seed Growers Co.  
Rocky Ford, Colo.  
James, R. H.  
Rocky Ford, Colo.

## CONNECTICUT

Associated Seed Growers, Inc.  
New Haven, Conn.  
(See Adv. on Page 99)  
Comstock, Ferre & Co.  
Wethersfield, Conn.  
(See Adv. on Page 91)  
Hart Seed Co., Chas. C.  
Wethersfield, Conn.  
(See Adv. on Page 45)  
Woodruff & Sons, F. H.  
Milford, Conn.  
(See Adv. on Front Cover)  
Woodruff & Sons, S. D.  
Orange, Conn.

## FLORIDA

Shreve Seed Co.  
Chipley, Fla.  
Gilbert, D. H. (Watermelon)  
Monticello, Fla.  
(See Adv. on Page 71)  
Kilgore Seed Co., The  
Plant City, Fla.  
Crenshaw-McMichael Seed Co.  
Tampa, Fla.  
Security Feed & Seed Co.  
Tampa, Fla.

## •GEORGIA

Athens Seed Co.  
Athens, Ga.  
(See Adv. on Page 57)  
Hastings-Associated Seeds, Inc.  
Atlanta, Ga.  
(See Adv. on Page 99)  
Walton Seed Co.  
Augusta, Ga.  
Curry-Arrington Seed Co.  
Rome, Ga.

## IDAHO

Filer Seed Co.  
Blackfoot, Ida.  
Crookham Co.  
Caldwell, Ida.  
Oakes & Co., Edgar L. (Sweet Corn)  
Caldwell, Ida.  
Duthie Co.  
Lewiston, Ida.  
Mark Means Seed Co.  
Lewiston, Ida.  
Moscow-Idaho Seed Co. (Peas and Beans)  
Moscow, Ida.  
Washburn Wilson Seed Co.  
Moscow, Ida.  
(See Adv. on Page 31)



## WESTERN COLORADO SEEDS

Are grown under different seasonal conditions. We are not liable to have short crops on the same items in the same season as other sections. This insures your contract against shortages on high priced items.

Beans, Carrot, Sweet Corn, Cucumber, Lettuce, Muskmelon, Onion, Parsnip, Peas, Pepper, Pumpkin, Squash, Tomato, Zinnias.

High Altitude Growing gives these seeds Earlier Maturity and Stronger Vitality.

**THE GRAND JUNCTION SEED CO.**

Grand Junction, Colorado

## ORIENTAL SEEDS



### FLOWER - VEGETABLE

MAMMOTH TURNIP

ICICLE RADISH

GIANT CHINESE SUGAR PEA

CHINESE CABBAGE

GENUINE WONG-BOK

PE-TSAI CHILI

**ORIENTAL SEEDS & PLANTS CO., INC.**

1707-1709 GEARY STREET

SAN FRANCISCO - - CALIFORNIA

## WATERMELON SEED

Since 1899

All standard sorts and many new varieties.

Offering for the first time a new and distinct variety, which will, account of its many superior qualities, supplant many other sorts. It's worth a trial.

**D. H. GILBERT**  
MONTICELLO, FLORIDA

*I Grow the Seed I Sell*

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### GARDEN VARIETIES

BUSH AND POLE LIMA  
AND GREEN AND WAX PODDED POLE

**HENRY BERRIEN FISH SEEDSMEN**

WHOLESALE GROWERS

**CARPINTERIA**

∴

**CALIFORNIA**



## WHOLESALE GARDEN SEEDS—Continued

## ILLINOIS

- Barnard Co., The W. W.  
Chicago, Ill.  
Leonard Seed Co.  
Chicago, Ill.  
(See Adv. on Third Cover)  
Rogers Bros. Seed Co.  
Chicago, Ill.  
(See Adv. on Rear Cover)  
Vaughan's Seed Store  
Chicago, Ill.  
Condon Bros. Seedsmen  
Rockford, Ill.

## INDIANA

- Crabbs, Reynolds, Taylor Co.  
Crawfordsville, Ind.  
Ohio Valley Seed Co.  
Evansville, Ind.  
Everitt's Seed Store  
Indianapolis, Ind.  
Warren Seed Co.  
Indianapolis, Ind.  
Indiana Seed & Plant Co.  
Richmond, Ind.  
Quinlan Seed Store  
Terre Haute, Ind.

## IOWA

- Standard Seed Co.  
Des Moines, Ia.  
Dakota Improved Seed Co.  
Emmetsburg, Iowa  
(See Adv. on Page 57)  
Webster Co., Mel L.  
Independence, Ia.  
Midwest Seed Co.  
Perry, Iowa  
Sioux City Seed Co.  
Sioux City, Ia.  
(See Adv. on Pages 79 and 95)

## KANSAS

- Mangelsdorf & Co., F. A.  
Atchison, Kan.  
Bowman Seed Co., The  
Concordia, Kan.  
Barteldes Seed Co.  
Lawrence, Kan.  
Coe Seed & Grain Co., D. O.  
Topeka, Kan.  
Ross Bros. Seed Co.  
Wichita, Kan.

## KENTUCKY

- Brent Seed Co., C. S.  
Lexington, Ky.  
(See Adv. on Page 39)  
Bunton Seed Co.  
Louisville, Ky.  
Hall Seed Co.  
Louisville, Ky.  
Yopp Seed Co.  
Paducah, Ky.

## LOUISIANA

- Reuter Seed Co., Inc.  
New Orleans, La.  
Kalmbach-Burckett Co., Inc.  
Shreveport, La.

## MARYLAND

- Blamberg Brothers, Inc.  
Baltimore, Md.  
(See Adv. on Page 23)  
Manns & Co., J.  
Baltimore, Md.  
Meyer Seed Co., The  
Baltimore, Md.

## MASSACHUSETTS

- Breck & Sons, Joseph  
Boston, Mass.  
Emerson Co., Thos. W.  
Boston, Mass.  
Ross Bros. Co.  
Worcester, Mass.

## MICHIGAN

- American Seed Co.  
Detroit, Mich.  
Ferry-Morse Seed Co.  
Detroit, Mich.  
(See Adv. on Page 76)  
Brown Seed Co., Alfred J.  
Grand Rapids, Mich.  
(See Adv. on Page 11)  
Brown & Son, Inc., A. J. (Peas and Beans)  
Grand Rapids, Mich.  
Isbell Seed Co.  
Jackson, Mich.  
(See Adv. on Page 27)

## MINNESOTA

- Farmer Seed & Nursery Co.  
Faribault, Minn.  
(See Adv. on Page 115)  
Northrup, King & Co.  
Minneapolis, Minn.  
(See Adv. on Page 5)

## MISSISSIPPI

- Wright Seed Co. (Beans)  
Centreville, Miss.  
Rose Seed Co.  
Clarksdale, Miss.  
Kimbrough Seed Co.  
Meridian, Miss.

## MISSOURI

- Adams Seed Co., T. Lee  
Kansas City, Mo.  
(See Adv. on Page 41)  
Rudy-Patrick Seed Co.  
Kansas City, Mo.  
(See Adv. on Page 39)  
Chesmore Seed Co.  
St. Joseph, Mo.  
Mitchellhill Seed Co.  
St. Joseph, Mo.  
Corneli Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)  
St. Louis Seed Co.  
St. Louis, Mo.  
United States Seed Co.  
St. Louis, Mo.

## MONTANA

- Elliott Seed Co.  
Billings, Mont.  
State Nursery & Seed Co.  
Helena, Mont.  
Northland Seed Co.  
Sidney, Mont.

## NEBRASKA

- Western Seed & Irrigation Co.  
Fremont, Neb.  
Griswold Seed & Nursery Co.  
Lincoln, Neb.  
(See Adv. on Page 65)  
Nebraska Seed Co.  
Omaha, Neb.  
(See Adv. on Page 9)  
Bowman Seed Co., The  
Superior, Neb.  
The J. C. Robinson Seed Co.  
Waterloo, Neb.  
(See Adv. on Page 99)

## NEW JERSEY

- White Co., Joseph (Tomato and Pepper)  
Bridgeton, N. J.  
(See Adv. on Page 91)  
Pedrick & Sons, Geo. R.  
Pedricktown, N. J.  
Hurff, Edgar F.  
Swedesboro, N. J.  
(See Adv. on Page 45)

## NEW YORK

- Harvey Seed Co.  
Buffalo, N. Y.  
Rice Seed Co., Jerome B.  
Cambridge, N. Y.  
(See Adv. on Page 45)  
Denison Seed Co., W. A.  
Ellisburg, N. Y.



# HERBST BROTHERS, INC.

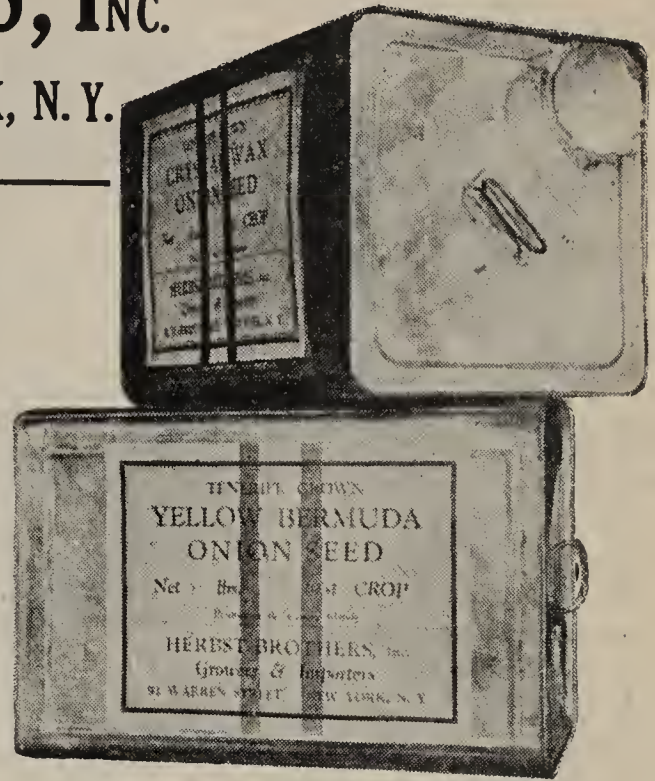
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**EXPORTERS AND IMPORTERS** of vegetable, flower and fancy grass seeds—seeds for the nursery and reforestation projects a specialty.

Complete buying and shipping service for foreign seedsmen.

**Offers** of seed suitable for introduction and sale in the United States solicited.



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**T. SAKATA & COMPANY**  
YOKOHAMA JAPAN

Growers and distributors of  
Tenerife grown Bermuda and  
Genuine Sweet Spanish Valencia  
Onion Seeds.

*See Color Insert Page 131*

**QUALITY**

**SERVICE**

**PRICE**

## SIOUX CITY SEED COMPANY

SIOUX CITY, IOWA

There's Safety in Sioux Brand Seeds

*A complete line of:*

**Field Seeds**

**Garden Seeds**

**Canners Seeds**

*Accurately tested for:*

**Viability**

**Productivity**

**Adaptation**

Honestly grown from the finest stocks and with utmost care.  
Growing stations throughout the middle and northwest.

**FOR 50 YEARS**

**Breeders and Growers for the Wholesale Trade**



## WHOLESALE GARDEN SEEDS—Continued

**Page Seed Co.****Greene, N. Y.**

(See Adv. on Page 57)

**Lupton & Son, J. M.****Mattituck, L. I., N. Y.****Herbst Bros.****New York, N. Y.**

(See Adv. on Pages 73 and 131)

**Loechner & Co., Inc.****New York, N. Y.**

(See Adv. on Page 83)

**Madsen & Co., Thos.****New York, N. Y.****Stumpp & Walter Co.****New York, N. Y.****Suhr Co., E.****New York, N. Y.**

(See Adv. on Page 81)

**Vaughan's Seed Store****New York, N. Y.****Williamson, Garfield****New York City**

(See Adv. on Page 92)

**Gardner Seed Co.****Rochester, N. Y.****NORTH CAROLINA****Buxton White Seed Co.****Elizabeth City, N. C.****Hornaday Seed Co.****Greensboro, N. C.****Wyatt & Sons Co., Job P.****Raleigh, N. C.****Roudabush's Seed Store****Wilmington, N. C.****NORTH DAKOTA****Magill & Co. (Operating Fargo Seed House)****Fargo, N. D.****OHIO****Botzum Bros. Seed Co.****Akron, Ohio****Holmes Seed Co.****Canton, Ohio****Letherman Seed & Supply Co.****Canton, Ohio****Schilder Bros. (Onion Seed and Sets)****Chillicothe, Ohio****McCullough Seed Co., J. Chas.****Cincinnati, Ohio**

(See Adv. on Page 65)

**McCullough's Sons Co., J. M.****Cincinnati, Ohio**

(See Adv. on Page 63)

**Market Gardener's Seed Co.****Cincinnati, Ohio**

(See Adv. on Page 63)

**Davis, Zack****Delaware, Ohio****O. & M. Seed Co.****Green Springs, Ohio**

(See Adv. on Page 115)

**Ingersoll Co., The Chas. M.****Rocky River, Ohio****Woodruff & Sons, F. H.****Toledo, Ohio**

(See Adv. on Front Cover)

**OKLAHOMA****Muskogee Seed House****Muskogee, Okla.****Clarke & Keller Seed Store****Shawnee, Okla.****Binding-Stevens Seed Co.****Tulsa, Okla.****OREGON****Hand Seed Co., Inc., A. M.****Portland, Ore.****Lilly Co., The Chas. H.****Portland, Ore.**

(See Adv. on Page 79)

**North Coast Seed Co.****Portland, Ore.****Portland Seed Co.****Portland, Ore.****Jenks White Seed Co.****Salem, Ore.**

(See Adv. on Page 25)

**PENNSYLVANIA****Landreth Seed Co., D.****Bristol, Pa.**

(See Adv. on Page 3)

**Schell, Inc., Walter S.****Harrisburg, Pa.****Buist Co., Robert****Philadelphia, Pa.**

(See Adv. on Page 75)

**Burpee Co., W. Atlee****Philadelphia, Pa.**

(See Adv. on Page 103)

**Michell Co., Henry F.****Philadelphia, Pa.****Simon & Son, I. N.****Philadelphia, Pa.**

(See Adv. on Page 75)

**RHODE ISLAND****Barrett Co., The W. E.****Providence, R. I.****SOUTH CAROLINA****Mixson Seed Co., Inc., W. H.****Charleston, S. C.****Caughman Feed & Seed Co.****Columbia, S. C.****Kirkland Seed Co., B. B.****Columbia, S. C.****Shuler & Smoak****Orangeburg, S. C.**

(See Adv. on Page 29)

**SOUTH DAKOTA****Dakota Improved Seed Co.****Mitchell, S. D.**

(See Adv. on Page 57)

**TENNESSEE****London Hardware Co.****Johnson City, Tenn.****Mayo, D. R.****Knoxville, Tenn.****Snapp & Sons, J. P.****Limestone, Tenn.**

(See Adv. on Page 93)

**Buchanan Seed Company, R. B.****Memphis, Tenn.****Russell-Heckle Seed Co.****Memphis, Tenn.****Dobson-Hicks Co.****Nashville, Tenn.****TEXAS****Eastern Seed Co.****Corpus Christi, Texas****Stokes & Co., Francis C.****Corpus Christi, Texas****Hardie Seed Co., David****Dallas, Texas****Magnolia Seed Co.****Dallas, Texas****Nicholson Seed Co., Robert****Dallas, Texas****American Seed Co.****Fort Worth, Texas****Texas-Associated Seeds, Inc.****Harlingen, Texas**

(See Adv. on Page 99)

**Acme Seed Co.****Lubbock, Tex.****Satex Seed Co.****San Antonio, Tex.****UTAH****Bailey & Sons Co.****Salt Lake City, Utah****Porter-Walton Seed Co.****Salt Lake City, Utah****VIRGINIA****Digg & Beadles Seed Co., Inc.****Richmond, Va.****Wood & Sons, T. W.****Richmond, Va.****WASHINGTON****Christianson, Alf.****Mt. Vernon, Wash.**

(See Adv. on Page 91)





# GARDEN SEEDS



WRITE FOR QUOTATIONS  
BEFORE PLACING YOUR ORDER

## ROBERT BUIST COMPANY

SEEDSMEN SINCE 1828

PHILADELPHIA

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PENNA.

CONTRACT GROWERS  
FOR  
THE WHOLESALE TRADE

**SANTA BARBARA  
SEED BEANS**

OUR OWN QUALITY STOCKS  
OF THE GARDEN VARIETIES



HAND PICKED  
IN OUR OWN PLANT



**McCREA SEED CO.  
INC.**

SANTA BARBARA, CALIF.

## GARDEN SEEDS

*for*

### CRITICAL TRADE

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PRICE LIST

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SEEDSMEN

529 Market St., Philadelphia, Pa.



## WHOLESALE GARDEN SEEDS—Continued

Skagit Seed Co.  
Mount Vernon, Wash.  
Zeb Seed Co.  
Mt. Vernon, Wash.  
Lilly Co., Chas. H.  
Seattle, Wash.  
(See Adv. on Page 79)  
Seattle Seed Co.  
Seattle, Wash.  
Spokane Seed Co.  
Spokane, Wash.

**WISCONSIN**  
Olds Seed Co., L. L.  
Madison, Wis.  
Manitowoc Seed Co.  
Manitowoc, Wis.  
Hunkel Co., G. H.  
Milwaukee, Wis.  
Wisconsin Cabbage Seed Co. (Cabbage Seed)  
Racine, Wis.

## GROWERS GARDEN SEEDS

**ALABAMA**

Pharr Co., King (Okra)  
Catherine, Ala.

**CALIFORNIA**

Fish, Henry Berrien, Seedsmen (Beans)  
Carpinteria, Calif.  
(See Adv. on Page 71)  
Pieters-Wheeler Seed Co.  
Gilroy, Calif.  
(See Adv. on Page 7)  
Rohnert Co., Waldo  
Gilroy, Calif.  
(See Adv. on Page 101)  
Lagomarsino & Sons, F.  
Sacramento, Calif.  
(See Adv. on Page 34)  
Woodruff & Sons, F. H.  
Sacramento, Calif.  
(See Adv. on Front Cover)  
Associated Seed Growers, Inc.  
Salinas, Calif.  
(See Adv. on Page 99)  
Kellogg Seed Co. of California  
Salinas, Calif.  
Bertrand Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 79)

Ferry-Morse Seed Co.  
San Francisco, Calif.  
(See Adv. Below)  
Maffei Seed Co., L. D.  
San Francisco, Calif.  
Sherwood Seed Co.  
San Francisco, Calif.  
(See Adv. on Page 47)  
Braslan Seed Growers Co., Inc.  
San Jose, Calif.  
(See Adv. on Page 93)  
Kimberlin Seed Co.  
San Jose, Calif.  
Haven Seed Co. (Tomato)  
Santa Ana, Calif.  
(See Adv. on Page 77)  
R. A. Haven, Seedsman (Tomato)  
Santa Ana, Calif.  
(See Adv. on Page 47)  
McCrea Seed Co.  
Santa Barbara, Calif.  
(See Adv. on Page 75)  
Hedrick & Sweetland  
Santa Paula, Calif.  
(See Adv. on Page 79)  
Standard Seed Farms Co.  
Stockton, Calif.  
(See Adv. on Page 100)



A view of our Trial Grounds near Salinas, California, where from 300 to 400 samples of lettuce are planted and noted three times each year.

**FERRY-MORSE SEED COMPANY**

DETROIT, MICH.

SAN FRANCISCO, CALIF.

GROWERS OF PURE LINE STRAINS OF

VEGETABLE AND FLOWER SEED

OUR SPECIALTIES INCLUDE—

BEET  
CARROT  
CELERY

LEEK  
LETTUCE  
ONION

PARSLEY  
PARSNIP  
RADISH

PEAS  
BEANS  
CORN

SWEET PEAS  
STOCKS  
ZINNIA



THE FINAL PROOF OF QUALITY—  
**THE CROP**

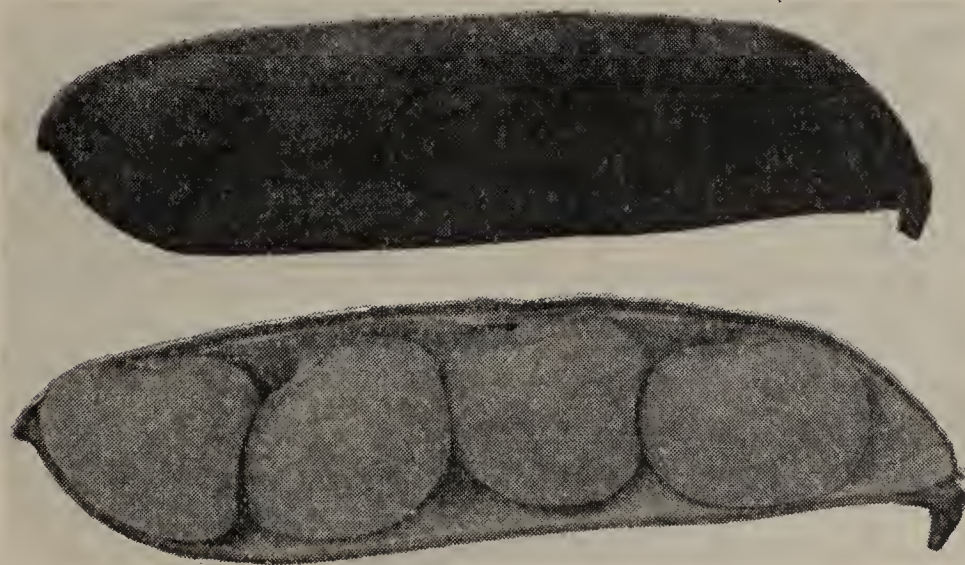


FINE STOCKS

BY

**"HAVEN"**

**TOMATO SEED**  
AND  
**FORDHOOK**  
**BUSH LIMA BEANS**



**Haven Seed Company**

SANTA ANA

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CALIFORNIA



## GROWERS GARDEN SEEDS—Continued

## CANADA

Hogg & Lytle, Ltd.  
Oshawa, Ont., Canada  
Steele, Briggs Seed Co., Ltd.  
Toronto, Canada  
(See Adv. on Page 35)

## COLORADO

Barteldes Seed Co. (Beans and Onion Sets)  
Denver, Colo.  
Grand Junction Seed Co.  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Associated Seed Growers, Inc.  
Greeley, Colo.  
(See Adv. on Page 99)  
Balcom Seed Co. (Beans)  
Greeley, Colo.  
Burrell Seed Growers Co.  
Rocky Ford, Colo.  
Ebbert Seed Co.  
Rocky Ford, Colo.  
Garwood Seed Co., H. D.  
Rocky Ford, Colo.  
James, R. H.  
Rocky Ford, Colo.  
Robinson Seed Co., The J. C.  
Rocky Ford, Colo.  
(See Adv. on Page 99)  
Woodruff & Sons, F. H.  
Rocky Ford, Colo.  
(See Adv. on Front Cover)  
Woodside Seed Growers Co.  
Rocky Ford, Colo.

## CONNECTICUT

Woodruff & Sons, F. H.  
Milford, Conn.  
(See Adv. on Front Cover)  
Associated Seed Growers, Inc.  
New Haven, Conn.  
(See Adv. on Page 99)  
Woodruff & Sons, S. D.  
Orange, Conn.  
Comstock, Ferre & Co.  
Wethersfield, Conn.  
(See Adv. on Page 91)  
Hart Seed Co., Chas. C.  
Wethersfield, Conn.  
(See Adv. on Page 45)

## FLORIDA

Taylor Seedsman, Inc., H. M. (Watermelon)  
Lloyd, Fla.  
Willie & Son, J. J. (Watermelon)  
Lloyd, Fla.  
Gilbert, D. H. (Watermelon)  
Monticello, Fla.  
(See Adv. on Page 71)  
Henderson Seed Farms (Watermelon)  
Monticello, Fla.  
Sattler, F. J. (Watermelon)  
Monticello, Fla.

## GEORGIA

Woodruff & Sons, F. H.  
Atlanta, Ga.  
(See Adv. on Front Cover)  
Richter & Sons, P. A. (Collard)  
Cairo, Ga.  
Steiner Branch Seed Co. (Watermelon)  
Grovetown, Ga.  
Beechwood Seed Farms (Okra)  
Rome, Ga.  
Fulwood, P. D.  
Tifton, Ga.  
(See Adv. on Page 23)

## IDAHO

Filer Seed Co.  
Blackfoot, Idaho  
Crookham & Co.  
Caldwell, Idaho  
Hodge, G. D. (Lettuce Seed)  
Moscow, Idaho  
Moscow-Idaho Seed Co. (Peas and Beans)  
Moscow, Idaho  
Washburn-Wilson Seed Co.  
(Peas and Beans)  
Moscow, Idaho  
(See Adv. on Page 31)

Associated Seed Growers, Inc.  
St. Anthony, Idaho

(See Adv. on Page 99)

Woodruff & Sons, F. H.  
St. Anthony, Idaho  
(See Adv. on Front Cover)

## ILLINOIS

Barnard Co., W. W.  
Chicago, Ill.  
Leonard Seed Co.  
Chicago, Ill.  
(See Adv. on Third Cover)  
Rogers Bros. Seed Co. (Peas and Beans)  
Chicago, Ill.  
(See Adv. on Rear Cover)  
Vaughan's Seed Store  
Chicago, Ill.  
Condon Bros., Seedsmen  
Rockford, Ill.

## INDIANA

Crabbs Reynolds Taylor Co.  
Crawfordsville, Ind.  
Hall-Stingle Co. (Tomato)  
Waterloo, Ind.

## IOWA

Hoopes & Co., J. E.  
Muscatine, Iowa  
Sioux City Seed Co.  
Sioux City, Iowa  
(See Adv. on Pages 73 and 95)

## KANSAS

Barteldes Seed Co.  
Lawrence, Kan.

## MARYLAND

Blamberg Bros., Inc.  
Baltimore, Md.  
(See Adv. on Page 23)

## MASSACHUSETTS

Breck & Sons, Joseph  
Boston, Mass.  
Emerson Co., Thos. W.  
Boston, Mass.

## MICHIGAN

Adrian Seed Growing Co. (Tomato Seed)  
Adrian, Mich.  
(See Adv. on Page 93)  
Morse & Son, Guy (Radish)  
Central Lake, Mich.  
Ferry-Morse Seed Co.  
Detroit, Mich.  
(See Adv. on Page 76)  
Brown & Son, Inc., A. J. (Peas and Beans)  
Grand Rapids, Mich.  
Brown Seed Co., Alfred J. (Peas and Beans)  
Grand Rapids, Mich.  
(See Adv. on Page 11)  
Isbell Seed Co.  
Jackson, Mich.  
(See Adv. on Page 27)

## MINNESOTA

Farmer Seed & Nursery Co.  
Faribault, Minn.  
(See Adv. on Page 115)  
Northrup, King & Co.  
Minneapolis, Minn.  
(See Adv. on Page 5)

## MISSOURI

Cornell Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)  
United States Seed Co.  
St. Louis, Mo.

## MONTANA

Woodruff & Sons, F. H.  
Belfry, Mont.  
(See Adv. on Front Cover)  
Associated Seed Growers, Inc.  
Bozeman, Mont.  
(See Adv. on Page 99)





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Gallatin Valley Seed Co.  
Bozeman, Mont.

Woodruff & Sons, F. H.  
Great Falls, Mont.  
(See Adv. on Front Cover)

Associated Seed Growers, Inc.  
Hamilton, Mont.  
(See Adv. on Page 99)

## NEBRASKA

Western Seed & Irrigation Co.  
Fremont, Neb.

Nebraska Seed Co.  
Omaha, Neb.  
(See Adv. on Page 9)

Coy & Son, Chauncey P. (Vine)  
Waterloo, Neb.

Robinson Seed Co., J. C. (Vine and Corn)  
Waterloo, Neb.  
(See Adv. on Page 99)

## NEW JERSEY

White Co., Joseph (Tomato and Pepper)  
Bridgeton, N. J.  
(See Adv. on Page 91)

Hammell Seed Farms, Geo. Q.  
Cedarville, N. J.

Pedrick & Sons, Geo. R.  
Pedricktown, N. J.

Hurff, Edgar F.  
Swedesboro, N. J.  
(See Adv. on Page 45)

## NEW YORK

Woodruff & Sons, F. H.  
Bellerose, N. Y.  
(See Adv. on Front Cover)

Rice Seed Co., Jerome B.  
Cambridge, N. Y.  
(See Adv. on Page 45)

Harris Co., Joseph  
Coldwater, N. Y.

Robson Seed Farms  
Hall, N. Y.

Lupton & Son, J. M.  
Mattituck, L. I., N. Y.

Herbst Brothers  
New York, N. Y.  
(See Adv. on Pages 73 and 131)

Madsen & Co., Thos.  
New York, N. Y.

Stumpp & Walter Co.  
New York, N. Y.

Suhr Co., E.  
New York, N. Y.  
(See Adv. on Page 81)

Vaughan's Seed Store  
New York, N. Y.

## OHIO

Holmes Seed Co.  
Canton, Ohio  
Schilder Bros. (Onion Seed and Sets)  
Chillicothe, Ohio

O. & M. Seed Co.  
Green Springs, Ohio.  
(See Adv. on Page 115)

Quirk, John B.  
North Madison, Ohio

Woodruff & Sons, F. H.  
Toledo, Ohio  
(See Adv. on Front Cover)

## OREGON

Gill Bros. Seed Co.  
Portland, Ore.  
Hand Seed Co., Inc., A. M.  
Portland, Ore.

## PENNSYLVANIA

Landreth Seed Co., D.  
Bristol, Pa.  
(See Adv. on Page 3)

Bulst Co., Robert  
Philadelphia, Pa.  
(See Adv. on Page 75)

Burpee Co., W. Atlee  
Philadelphia, Pa.  
(See Adv. on Page 103)

## TENNESSEE

Snapp, J. P., & Sons  
Limestone, Tenn.  
(See Adv. on Page 93)

## TEXAS

Magnolia Seed Co.  
Dallas, Texas  
Nicholson Seed Co., Robert  
Dallas, Texas

Woodruff & Sons, F. H.  
Mercedes, Texas  
(See Adv. on Front Cover)

## VERMONT

Hawkins, Budd D.  
Reading, Vt.

## VIRGINIA

Wood & Sons, T. W.  
Richmond, Va.

## WASHINGTON

Associated Seed Growers, Inc.  
Fairfield, Wash.  
(See Adv. on Page 99)

Aabling's Seed Farms, Inc.  
Mt. Vernon, Wash.

Christianson, Alf  
Mt. Vernon, Wash.  
(See Adv. on Page 91)

Skagit Seed Co.  
Mt. Vernon, Wash.

Zeb Seed Co.  
Mt. Vernon, Wash.

Lilly Co., Chas. H.  
Seattle, Wash.  
(See Adv. on Page 79)

Northwest Seed Co.  
Seattle, Wash.

Seattle Seed Co.  
Seattle, Wash.

Morrison Bros. Seed Co. (Peas)  
Spokane, Wash.

## WISCONSIN

Rugowski Seed Co., J. K.  
Manitowoc, Wis.

Hunkel Co., G. H.  
Milwaukee, Wis.

Wisconsin Cabbage Seed Co.  
Racine, Wis.

## WYOMING

Woodruff & Sons, F. H.  
Basin, Wyoming  
(See Adv. on Front Cover)

Woodruff & Sons, F. H.  
Douglas, Wyoming  
(See Adv. on Front Cover)

Associated Seed Growers, Inc.  
Powell, Wyoming  
(See Adv. on Page 99)

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Anderson Ltd., W. H.  
Sydney, N. S. W., Australia  
Austra Seed Co., Ltd.  
Sydney, N. S. W., Australia  
Brunnings, Pty., Ltd., F. H.  
Melbourne, Victoria, Australia  
Fosters, Ltd.  
Sydney, N. S. W., Australia  
Gippsland & Northern Co-op. Co., Ltd.  
Melbourne, Victoria, Australia  
Law, Somner & Co.  
Melbourne, Victoria, Australia  
Martin & O'Keefe, Ltd.  
Sydney, N. S. W., Australia  
Peterson Bros. & Craig, Ltd.  
Brisbane, Queensland, Australia  
Railton, James  
Melbourne, Victoria, Australia  
Shepherd & Sons, Ltd.  
Sydney, N. S. W., Australia  
Watters & Son Pty., Ltd.  
Melbourne, Victoria, Australia  
Yates & Co., Ltd., Arthur  
Sydney, N. S. W., Australia

### AUSTRIA

Hernfeld, Adolf (Garden Peas)  
Vienna, Austria

### CANARY ISLANDS

Alonso, Juan P.  
Teneriffe, Canary Islands  
Dorta C. Garcia (Onion Seed)  
Teneriffe, Canary Islands  
(See Adv. on Page 87)  
Fumero, Jose (Onion Seed)  
Teneriffe, Canary Islands  
Prieto, Alberto Varela (Onion Seed)  
Teneriffe, Canary Islands

### CHINA

Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China

### CZECHOSLOVAKIA

Grunberger, A. M.  
Trebic, Czechoslovakia  
Kunt, F. A.  
Hradeckralove, Czechoslovakia  
Loewenthal Brothers  
Brno, Czechoslovakia  
Schon, Jacob S., Ltd.  
Brünn, Czechoslovakia  
Vanek, Heinrich  
Prague, Czechoslovakia

### DENMARK

L. Daehnfeldt & Theodor Jensen, Ltd.  
Odense, Denmark  
(See Adv. on Page 97)  
Danish Seed Cultures Co., Inc.  
Kerteminde, Denmark  
Hansen, A. (Cauliflower and Cabbage)  
Kastrup, Amager, Denmark  
(See Adv. on Page 83)  
Hartmann & Co., Hjalmar  
Copenhagen, Denmark  
(See Adv. on Page 83)  
Helm-Petersen Co., I. C.  
Aarhus, Denmark  
Krogh, A.  
Odense, Denmark  
Ohlsen's Enke, J. E.  
Copenhagen, Denmark  
(See Adv. on Page 69)  
Olsen, Chr. (Cauliflower, Cabbage)  
Odense, Denmark  
(See Adv. on Page 87)  
Ostergaards Froavl  
Stensballe, Horsens, Denmark

Stallknecht & Meyer  
Copenhagen, Denmark  
Suhr Co., E.  
Copenhagen, Denmark  
(See Adv. on Page 81)

### ENGLAND

Brown & Co., D. T.  
Poulton-Le-Fylde, Lancashire, Eng-  
land  
Bunting & Co., G. A.  
London, W. C. I., England.  
Clucas, Ltd., John L.  
Ormskirk, England  
Cooper, Taber & Co., Ltd.  
London, England  
Cullen & Sons, Thos.  
Witham, England  
Cundy, Chas., & Son  
Sudbury, Suffolk, England  
Daniels, C. S., & Son  
Wymondham, Norfolk, England  
Harrison & Sons  
Leicester, England  
Hurst & Son  
London, England  
Johnson & Son, Ltd., W. W.  
Boston, England  
Kelway & Son (1933) (Flower Seeds)  
Langport, Somerset, England  
(See Adv. on Page 107)  
King & Co., Ltd., E. W.  
Coggeshall, Essex, England  
Nutting & Sons, Ltd.  
London, England  
Pope & Chapman, Ltd.  
Bishops Stortford, England  
Sharpe & Co., Ltd., Chas. (Peas and Tur-  
nip)  
Sleaford, England  
Ward & Co.  
Bristol, England  
Watkins & Simpson, Ltd.  
London, England  
Webb & Sons, Ltd., E.  
Stourbridge, England  
Yates & Sons  
Cheltenham, England

### FRANCE

Blanc, Jules  
Jonquieres (Vaucluse), France  
Boret, Victor  
Saumur (Maine & Loire), France  
Camut  
Angers (Maine & Loire), France  
Cayeux & LeClerc  
Paris, France  
Clause, L.  
Bretigny Sur Orge (Seine et Oise),  
France  
Davy  
Juvisy (Seine et Oise), France  
Denaiffe & Fils  
Carignan (Ardennes), France  
Desbois, A.  
Brain Sur l'Authion, France  
Fontaine, G.  
Bourg Achard (Eure), France  
Garcin, L. Bernard  
St. Saturnin-lez-Avignon, Vaucluse,  
France  
Garcin & Mistral  
St. Remy de Provence (Bouches du  
Rhone), France  
Godineau, R.  
Angers (Maine & Loire), France  
Hamonet, A.  
Angers (Maine & Loire), France  
Imbach  
Angers (Maine & Loire), France  
Leonard Lille  
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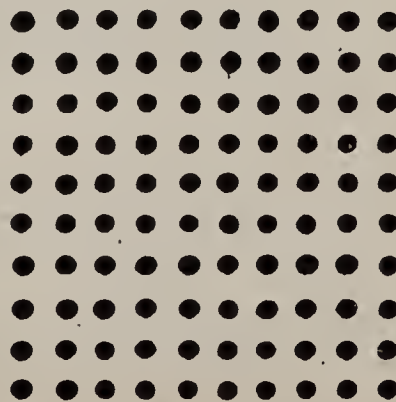
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Pucel, Jules  
Cambrai (Nord), France  
E. de Rougemont  
St. Remy-de-Provence, France  
Roumanille Freres  
St. Remy-de-Provence, France  
Simon Louis Freres & Cie  
Bruyeres-le-Chatel (S. & O.), France  
Tezier Freres  
Valence-Sur-Rhone (Drome), France  
Vilmorin Andrieux & Co.  
Paris, France

## GERMANY

Beck & Co., Carl  
Quedlinburg, Germany  
Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)  
Bitterhoffsohn, August  
Berlin, Germany  
Fischer, Ferdinand  
Wiesbaden-Aukamm, Germany  
Gebruder, Dippe, A. G.  
Quedlinburg, Germany  
Haage, Franz Anton  
Erfurt, Germany  
Haage & Schmidt  
Erfurt, Germany  
Haubner, August  
Eisleben, Germany  
Heinemann, F. C.  
Erfurt, Germany  
Hesse & Sohn, Robt.  
Rieder, Quedlinburg, Germany  
Hofmann, Joh. Thomas  
Nurnberg, Germany  
Just, Otto  
Aschersleben, Germany  
Mann, Otto  
Leipzig-Eutritzsch, Germany  
Mette, Heine  
Quedlinburg, Germany  
(See Adv. on Page 107)  
Mohrenweiser, Chr.  
Altenweddingen, Germany  
Noth, Johs, Jr.  
Fischbach (Gotha), Germany  
Pabst, Karl  
Erfurt, Germany  
Sachs, David  
Quedlinburg, Germany  
Schmidt, J. C.  
Erfurt, Germany  
Terra, A. G.  
Aschersleben, Germany

## HOLLAND

Dekker, Jac.  
Alkmaar, Holland  
Duyvesteyn's Zaadteelt & Zaadhandel, L.  
P. (Cauliflower)  
Loosduinen, Holland  
Hollandsche Zaadteelt & Zaadhandel, Ltd.  
Amsterdam, Holland  
Pannevis Zaadteelt & Zaadhandel, C. W.  
(Cauliflower)  
Delft, Holland  
Rood & Zoon, P.  
Bovenkarspel, Holland  
Sluis, Abraham  
Enkhuizen, Holland  
Sluis Bros., Ltd.  
Enkhuizen, Holland  
Sluis, Jacob, Sen.  
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Sluis & Groot's Zaadteelt & Zaadhandel  
Enkhuizen, Holland  
Van Beusekom, Corns.  
Arnhem, Holland  
Van Den Berg Bros., Ltd.  
Naaldwijk, Holland  
Van Der Have, D. J. (Sugar Beets)  
Kappelle, Biezelinge, Holland  
Van Der Ploeg, Ltd., D.  
Zwijndrecht, Holland

Van Der Veld, George  
Lisse, Holland  
Van Namen Bros.  
Zwijndrecht, Holland  
Westlandsche Zaadteelt & Zaadhandel  
Van Den Berg Bros., Ltd., (Cauli-  
flower)  
Naaldwijk, Holland  
Zwaan & De Wiljes, Inc.  
Scheemda, Holland  
Zwaan & Van Der Molen, Inc.  
Voorburg The Hague, Holland

## HUNGARY

Fekete Brothers  
Budapest, Hungary  
Hungarian Seed Culture Co., Ltd.  
Budapest, Hungary  
Kertesz, Ludwig  
Budapest, Hungary  
Mauthner, Ltd., Edmund  
Budapest, Hungary  
"Selecta" Seed Growing Co., Ltd.  
Budapest, Hungary

## INDIA

American Seed & Nursery Co.  
Lahore, India.  
Pocha & Sons, Pestonjee P.  
Poona, India  
Sarup & Sons  
Maymyo, Burma, India

## ITALY

Borgatti, Giovanni  
Bologna, Italy  
Bulleri, Francesco  
Scafati (Salerno), Italy  
Ditta, D'Anna Francesco  
San Giovanni A Teduccio, Italy  
Herb, M.  
Naples, Italy  
Ingegnoli, Sigg Fratelli  
Milan, Italy  
Mennella, Carmine Faraone  
Torre Del Greco (Near Naples), Italy  
(See Adv. on Page 85)  
Sgaravatti Fratelli-Sementi  
Padova, Italy

## JAPAN

Fujita Seed Co.  
Osaka, Japan  
Sakata & Co., T.  
Yokohama, Japan  
(See Adv. on Pages 73 and 131)  
Takii & Co.  
Kyoto, Japan  
Tokyo Konoen, Ltd.  
Shibuya, Tokyo, Japan  
Yamato Seed & Imp. Co.  
Mejiro, Tokyo, Japan

## NEW ZEALAND

Cooper, Ltd., F.  
Wellington, New Zealand  
Nimmo & Blair  
Dunedin, New Zealand  
Yates & Co., Ltd., Arthur  
Auckland, New Zealand

## NORWAY

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Bergen, Norway  
Herlofsen's Frohandel  
Oslo, Norway  
A. S. Norsk Fro.  
Oslo, Norway  
Olsen's Enke A/S, J.  
Oslo, Norway

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Bell, Ltd., David  
Leith, Scotland  
Cross Seed Co., Ltd., Alexander  
Glasgow, Scotland  
Lawson & Son, Ltd., Peter  
Edinburgh, Scotland

## SWEDEN

Daenfeldts Frohandel, A. B. T.  
Helsingborg, Sweden  
Gehlins Frohandel, A. B.  
Malmo, Sweden  
Goteborgs Tradgardsforening  
Gothenburg, Sweden  
Holmberg & Son, Aktiebolaget, Algot  
Norrkoping, Sweden

Ohlsens Enke A/B, J. E.  
Malmo, Sweden

Weibull Aktiebolaget, W.  
Landskrona, Sweden

## SWITZERLAND

Dammann, F.  
Lugano, Switzerland  
(See Adv. on Page 87)

Haubensak Sons, Fr.  
Basel, Switzerland

Mauser, Emil  
Zurich, Switzerland

Muller & Cie  
Zurich, Switzerland

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Heated by gas, electricity or alcohol  
for one to six tests at a time

**SEED TRADE REPORTING BUREAU**

325 W. Huron St.

CHICAGO, ILL.



## VEGETABLE PLANTING TABLE

Kind of vegetable	Seeds or roots required for 100 ft. of drill	One Acre	Distance for plants to stand				Depth of planting	Time of planting in open ground		Ready for use after planting
			Rows apart			Plants apart in rows		South	North	
			Horse cultivation	Hand cultivation						
Asparagus, seed.....	1 oz.....	5 lbs.....	30 to 36 in.....	1 to 2 ft.....	3 in.....	1 in.....	Autumn or early spring	Early spring.....	2 years	
Asparagus, roots.....	60 to 80.....	1 bu.....	3 to 5 ft.....	12 to 24 in.....	15 to 20 in.....	3 to 5 in.....	Autumn or early spring	Early spring.....	1 year	
Beans, dwarf.....	1 pt.....	1 bu.....	30 to 36 in.....	18 to 24 in.....	2 in.....	1 in.....	Feb. to April (Aug. to Sept.).....	April to July.....	42 to 75 days	
Beans, pole.....	1/2 pt.....	1/2 bu.....	3 to 4 ft.....	3 to 4 ft.....	3 to 4 ft.....	1 in.....	Late spring.....	May and June.....	72 to 90 days	
Beets.....	1 oz.....	6 lbs.....	28 to 36 in.....	12 to 18 in.....	2 in.....	1 in.....	Feb. to April (Aug. to Sept.).....	April to August.....	45 to 60 days	
Brussels sprouts.....	1/4 oz.....	2 oz.....	30 to 36 in.....	24 to 30 in.....	16 to 24 in.....	1/2 in.....	Jan. to July.....	May and June.....	100 to 120 days	
Cabbage, early.....	1/4 oz.....	1/4 lb.....	30 to 36 in.....	24 to 30 in.....	12 to 18 in.....	1/2 in.....	Oct. to Dec.....	Mar. and Apr. (Start in hotbed during Feb.)	90 to 110 days	
Cabbage, late.....	1/4 oz.....	1/4 lb.....	30 to 40 in.....	24 to 36 in.....	16 to 24 in.....	1/2 in.....	June and July.....	May and June.....	110 to 120 days	
Carrot.....	1/2 oz.....	2 lbs.....	30 to 36 in.....	18 to 24 in.....	2 in.....	1/2 in.....	Mar. and Apr. Sept.....	April to June.....	55 to 80 days	
Cauliflower.....	1/4 oz.....	1 oz.....	30 to 36 in.....	24 to 30 in.....	14 to 18 in.....	1/2 in.....	Jan. and Feb. [June].....	April to June.....	95 to 110 days	
Celery.....	1/4 oz.....	1/4 lb.....	3 to 6 ft.....	18 to 36 in.....	2 in.....	1/8 in.....	Aug. and Oct.....	May & June. (Start in hotbed or cold frame during Mar. or Apr.)	120 to 150 days	
Collards.....	1/4 oz.....	1/4 lb.....	30 to 36 in.....	24 to 30 in.....	14 to 18 in.....	1/2 in.....	May and June.....	Late spring.....	100 to 120 days	
Corn, sweet.....	1/4 oz.....	6 qts.....	36 to 42 in.....	30 to 36 in.....	4 to every 3 ft.....	1 in.....	Feb. to April.....	May to July.....	55 to 90 days	
Cress, water.....	1/2 oz.....	2 lbs.....	Broadcast.....	4 to 6 ft.....	4 every 3 ft.....	water.....	Early spring.....	April to Sept.....	60 to 70 days	
Cucumber.....	1/2 oz.....	2 lbs.....	4 to 6 ft.....	24 to 30 in.....	18 in.....	1 in.....	Feb. and Mar. [Sept.].....	April to July.....	50 to 70 days	
Eggplant.....	1/8 oz.....	1/4 lb.....	30 to 36 in.....	24 to 30 in.....	18 in.....	1/2 in.....	Feb. to April.....	Apr. & May. (Start in hotbed during Mar.)	125 to 140 days	
Endive.....	1 oz.....	2 lbs.....	30 in.....	18 in.....	12 in.....	1/2 in.....	Feb. to April.....	April [July].....	100 days	
Kale, or borecole.....	1/4 oz.....	1 lb.....	30 to 36 in.....	18 to 24 in.....	18 in.....	1/2 in.....	Oct. to Feb.....	Aug. to Sept. [March and April].....	55 to 60 days	
Kohl-rabi.....	1/4 oz.....	1 lb.....	30 to 36 in.....	18 to 24 in.....	6 in.....	1/2 in.....	Sept. to May.....	March to May.....	50 to 70 days	
Leek.....	1/2 oz.....	4 lbs.....	30 to 36 in.....	14 to 20 in.....	4 in.....	1/2 in.....	May to Sept.....	March to May.....	120 to 150 days	
Lettuce.....	1/2 oz.....	3 lbs.....	30 in.....	12 to 18 in.....	6 in.....	1/2 in.....	Sept. to March.....	March to Sept.....	70 to 90 days	
Muskmelon.....	1/2 oz.....	2 lbs.....	6 to 8 ft.....	6 to 8 ft.....	4 every 4 ft.....	1 in.....	Feb. to April.....	April to June.....	85 to 150 days	
Watermelon.....	1 oz.....	2 lbs.....	8 to 12 ft.....	8 to 12 ft.....	4 every 6 ft.....	1 in.....	March to May.....	May and June.....	100 to 130 days	
Mustard.....	1/4 oz.....	1 lb.....	30 to 36 in.....	12 to 18 in.....	4 or 5 to ft.....	1/4 in.....	Autumn or early spring	March to May. [Sept.]	60 to 90 days	
Okra.....	2 oz.....	8 lbs.....	4 to 5 ft.....	3 to 4 ft.....	24 in.....	1 in.....	Feb. to April.....	May and June.....	90 to 140 days	
Onion, seed.....	1 oz.....	4 lbs.-5 lbs.....	24 to 36 in.....	12 to 18 in.....	2 in.....	1/2 in.....	Oct. to March.....	April to May.....	125 to 150 days	
Onion, sets.....	1 qt.....	.....	24 to 36 in.....	12 to 18 in.....	4 or 5 to ft.....	1 in.....	Early spring.....	Autumn and Feb. to May.....	100 days	
Onion seed for sets.....	1 lb.....	50 lbs.....	24 to 36 in.....	12 to 18 in.....	1/2 in.....	1/2 in.....	Early spring.....	April.....	90 days	
Parsley.....	1/4 oz.....	3 lbs.....	24 to 36 in.....	12 to 18 in.....	3 in.....	1/8 in.....	Sept. to May.....	Sept. and early spring.....	65 to 90 days	
Parsnip.....	1/2 oz.....	3 lbs.....	30 to 36 in.....	18 to 24 in.....	2 in.....	1/2 in.....	March and April.....	April and May.....	130 days	
Peas.....	1 pt.....	1 bu.....	3 to 4 ft.....	30 to 36 in.....	1 in.....	1 in.....	Sept. to April.....	March to June.....	45 to 75 days	
Pepper.....	1/8 oz.....	2 oz.....	30 to 36 in.....	18 to 24 in.....	15 in.....	1/2 in.....	Early spring.....	May and June. (Start early plants in hotbed during March)	130 to 150 days	
Potatoes, Irish.....	5 lbs.....	16 bu.....	30 to 36 in.....	24 to 36 in.....	14 in.....	4 in.....	Jan. to April.....	March to June.....	90 to 150 days	
Potatoes, sweet.....	3 lbs (or 75 slips).....	.....	3 to 5 ft.....	3 to 5 ft.....	14 in.....	3 in.....	April and May.....	May and June.....	150 days	



Kind of vegetable	Seeds or roots re- quired for 100 ft. of drill	One Acre	Distance for plants to stand			Depth of planting	Time of planting in open ground		Ready for use after planting
			Rows apart		Plants apart in rows		South	North	
			Horse culti- vation	Hand culti- vation					
Pumpkin.....	½ oz.....	4 lbs.....	8 to 12 ft.....	8 to 12 ft.....	4 every 6 ft...	1 in.....	April and May.....	May to July.....	75 to 90 days
Radish.....	1 oz.....	10 lbs.....	24 to 36 in....	12 to 18 in....	1 in.....	½ in.....	Sept. to April.....	March to Sept.....	20 to 75 days
Rhubarb, seed.....	½ oz.....	.....	36 in.....	30 to 36 in....	6 in.....	½ to 1 in....	.....	Early spring.....	3 years
Rhubarb, roots.....	33 roots.....	.....	3 to 5 ft.....	3 to 5 ft.....	3 ft.....	2 to 3 in....	.....	Autumn or early sp'ng.....	1 year
Ruta-baga.....	¼ oz.....	2 lbs.....	30 to 36 in....	18 to 24 in....	6 in.....	½ to 1 in....	Aug. and Sept.....	May and June.....	90 days
Salsify.....	1 oz.....	8 lbs.....	30 to 36 in....	18 to 24 in....	2 in.....	½ in.....	.....	Early spring.....	150 days
Spinach.....	1 oz.....	8 lbs.....	30 to 36 in....	12 to 18 in....	2 in.....	1 in.....	Sept. to Feb.....	Sept. or very e'ly spr'g	45 days is min.
Squash, summer.....	½ oz.....	4 lbs.....	3 to 4 ft.....	3 to 4 ft.....	4 every 4 ft...	1 in.....	Spring.....	April to June.....	65 to 70 days
Squash, winter.....	½ oz.....	2 lbs.....	7 to 10 ft.....	7 to 10 ft.....	4 every 6 ft...	1 in.....	Spring.....	May to July.....	125 days
Tomato.....	⅛ oz.....	1½ oz.....	3 to 5 ft.....	3 to 4 ft.....	3 by 4 ft.....	½ in.....	Dec. to March.....	May to June.....	125 to 150 days
Turnip.....	½ oz.....	1 lb.....	24 to 36 in....	18 to 24 in....	2 in.....	¼ in.....	Aug. to Oct.....	April and Aug.....	45 to 90 days

Helpful Hints to Vegetable Gardeners

DECIDE early how much ground you will use and what you will plant.

Plow or spade before the ground freezes, if you can. A little fertilizer or manure will insure better crops.

Don't cover the seed too deep. It will germinate more quickly if only a little soil is on the seed. See full cultural directions on the packets.

Leave the garden alone until the plants come up. If you have sown bulk seeds, thin rows after plants are up an inch or two. Using seed-tape reduces thinning to a minimum.

Lima beans should be planted with the eye down and covered one inch deep.

Sow radishes directly in the row with your parsley.

Order your seeds early so that you can take advantage of the first signs of spring.

When you water, do it thoroughly—don't sprinkle, soak.

Plant early everything but beans, wrinkled peas, and vine crops.

If soil is dry, water may be put on. Let it run slowly and don't spare the water—it's cheap.

Don't think water will take the place of thorough cultivation—it won't.

You will have a better garden if you use the hoes more, and the hose less.

Weeds are garden robbers. Kill them when they are small.

For large head lettuce, thin out to at least six inches.

Plant enough to have some vegetables for home canning.

Buy only first-class, reputable materials, even if it means less of them.

Get a good spray and use it.

Hoe often to loosen the soil and hold moisture around the roots of the plants.

You cannot do good work with poor tools.

Have a good hoe, rake, fork and spade.

A small hand cultivator will make you feel like a professional gardener. It will soon pay for itself, too.

Don't try "watchful waiting" for bugs, worms and other vermin. Swat 'em or they will spoil your plants.

Plant small, quick growers like lettuce, radishes, etc., between the rows of larger, slower maturing sorts. In the case of early sorts such as spinach, start tomatoes, corn, etc., between the rows to occupy the ground after the former is harvested.

Never cultivate or handle any kind of beans when the vines are wet. This is the easiest way to spread a serious disease and ruin the crop.

Success against weeds means keeping them out, not taking them out after they get in.

To ensure a succession of such plants as peas, beans, lettuce, radishes, beets, kohlrabi, etc., sow a fresh row every week or so.



## CHARACTERISTICS OF VEGETABLE SEEDS

The figures in the following table are intended to be approximate only, as variations occur in varieties and are also due to conditions of growth, harvest and storage.

Vegetable	Average Germination 1 Year Old Seed	Average Duration of Germinating Power in Years	Average Number of Seeds per Ounce	Average Weight of Quart of Seed in Ounces	Amount Required for 100 Feet of Drill	Amount of Seed required Per Acre	Depth of Planting
Asparagus.....	90%	3	1,000	32	1 oz.	5 lbs.	1 in.
Beans, Dwarf.....	90%	3	100	30	1 lb.	60 lbs.	1 in.
Beans, Pole.....	90%	3	100	30	½ lb.	30 lbs.	1 in.
Beet, Garden.....	80%	4	1,750	10	1 oz.	6 lbs.	1 in.
Beet, Mangel.....	80%	4	1,200	10	1 oz.	5 lbs.	1 in.
Brussels Sprouts....	85%	4	6,500	24	¼ oz.	2 oz.	½ in.
Cabbage.....	85%	4	5,000	24	¼ oz.	4 oz.	½ in.
Carrot.....	75%	3	14,000	12	½ oz.	2 lbs.	½ in.
Cauliflower.....	75%	4	14,000	24	¼ oz.	1 oz.	½ in.
Celery.....	80%	3	100,000	16	¼ oz.	4 oz.	⅛ in.
Collards.....	88%	3	4,500	24	¼ oz.	4 oz.	½ in.
Corn, Sweet.....	85%	3	125	23	¼ lb.	12 lbs.	1 in.
Cucumber.....	85%	5	1,000	18	½ oz.	2 lbs.	1 in.
Eggplant.....	75%	4	5,000	18	⅛ oz.	4 oz.	½ in.
Endive.....	80%	5	13,500	12	1 oz.	2 lbs.	½ in.
Kale.....	85%	4	7,500	24	¼ oz.	1 lb.	½ in.
Kohlrabi.....	85%	3	7,000	24	¼ oz.	1 lb.	½ in.
Leek.....	80%	2	8,000	18	½ oz.	4 lbs.	½ in.
Lettuce.....	90%	6	16,000	14	½ oz.	3 lbs.	½ in.
Melon, Musk.....	85%	5	1,200	12	½ oz.	2 lbs.	1 in.
Melon, Water.....	85%	5	225	16	1 oz.	2 lbs.	1 in.
Mustard.....	85%	3	18,000	30	¼ oz.	1 lb.	¼ in.
Okra.....	85%	1	425	20	2 oz.	8 lbs.	1 in.
Onion.....	80%	2	12,500	16	1 oz.	4 lbs.	½ in.
Parsley.....	70%	1	17,500	12	¼ oz.	3 lbs.	⅛ in.
Parsnip.....	75%	1	2,800	10	½ oz.	3 lbs.	½ in.
Peas.....	90%	3	50 to 150	30	1 lb.	60 lbs.	1 in.
Pepper.....	75%	2	4,000	16	⅛ oz.	2 oz.	½ in.
Pumpkin.....	90%	4	100	9	½ oz.	4 lbs.	1 in.
Radish.....	90%	4	5,000	24	1 oz.	10 lbs.	½ in.
Salsify.....	75%	1	4,500	12	1 oz.	8 lbs.	½ in.
Spinach.....	80%	3	3,000	14	1 oz.	8 lbs.	1 in.
Squash, Summer....	90%	4	300	20	½ oz.	4 lbs.	1 in.
Squash, Winter....	90%	4	125	14	½ oz.	2 lbs.	1 in.
Tomato.....	85%	3	7,500	10	⅛ oz.	1½ oz.	½ in.
Turnip.....	90%	4	10,000	24	½ oz.	1 lb.	¼ in.

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*by*  
**ADVERTISING IN SEED WORLD**



## IMPORTS AND PRICES OF VEGETABLE SEEDS

*Compiled from figures published by Department of Commerce.*

Kind of Seed	Import Duty Per lb.	Imports—Calendar Years					Average Prices				
		1930	1931	1932	1933	1934*	Per lb.	Per lb.	Per lb.	Per lb.	Per lb.
	Cents	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	1930	1931	1932	1933	1934*
Beet, gdn.	4	343,877	351,240	178,522	572,073	177,339	\$.176	\$.155	\$.129	\$.129	\$.161
Beet, mgl.	4	318,126	366,927	137,526	244,501	70,826	.111	.093	.082	.071	.086
Cabbage...	12	341,897	250,180	172,452	173,517	72,996	.584	.499	.491	.392	.426
Carrot....	4	20,798	15,751	34,492	60,476	18,414	.572	.382	.290	.332	.492
Califlwr...	25	18,826	17,501	13,213	11,349	4,971	6.327	5.747	5.806	5.472	7.098
Kale.....	6	72,649	41,996	44,923	48,444	22,280	.177	.187	.158	.165	.183
Kohlrabi..	8	15,249	19,359	12,008	15,096	5,211	.414	.324	.297	.306	.414
Onion....	15	203,620	190,011	230,362	160,180	10,829	1.487	.830	.583	.674	.534
Parsley...	2	348,852	308,280	179,209	43,732	83,886	.109	.066	.045	.083	.041
Parsnip...	4	18,351	15,620	13,322	24,045	13,243	.140	.130	.105	.110	.133
Pepper...	15	2,220	4,038	1,012	961	859	.918	.733	.727	.702	.868
Radish...	6	872,765	695,682	565,102	444,789	172,016	.172	.148	.133	.131	.160
Rutabaga..	5	177,578	169,672	92,943	288,427	48,222	.108	.118	.108	.085	.091
Spinach...	1	2,762,797	2,030,618	2,386,496	3,783,364	751,567	.092	.085	.077	.085	.094
Turnip...	5	1,194,633	1,090,140	482,057	1,211,931	266,621	.123	.109	.096	.080	.108

\*Six months ended June 30, 1934. All prices are F. O. B. port of origin and not including duty.

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THE ALUMINUM SULPHATE COMPOUND

Rhododendrons, Azaleas, Kalmias, Huckleberries, Cranberries and all plants of the same Ericaceous Family will flourish only when the soil is of the proper chemical condition which this class of material demands.

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SEND FOR CIRCULAR

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# WHOLESALE GROWERS

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Beet  
Parsnip  
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Salsify  
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sonal Attention.**

**ADRIAN SEED GROWING CO.**  
Adrian, Mich. U. S. A.

## *Use the* TRADE MARK SECTION

starting page 50—for the leading Trade Marks and Brands used  
by the Seedsmen and Manufacturers  
of Allied Lines.



# 1935 ALL-AMERICA WINNERS

## FLOWERS

Variety	Name	Award	Entered for Trial by
Cosmos	Klondyke Hybrid Orange Flare	Grand Champion Gold Medal	Bodger Seeds, Ltd., El Monte, Calif.
Nasturtium	Scarlet Gleam	Gold Medal	Bodger Seeds, Ltd., El Monte, Calif.
Marigold	Yellow Supreme	Gold Medal	Livingston Seed Co., Columbus, Ohio
Calendula	Orange Shaggy	Gold Medal	Waller-Franklin Seed Co., Guadalupe, Calif.
Zinnia	Fantasy Mixture-	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.
Petunia	Martha Washington	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Nasturtium	Bodger's Glorious Gleam Hybrids	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.
Phlox	Gigantea Art Shades	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Dianthus	Lacinatus Splendens	Special Mention	{ Bodger Seeds, Ltd., El Monte, Calif. { F. C. Heineman, Erfurt, Germany.
Verbena	Nana Erecta Violet Bouquet	Special Mention	Waller-Franklin Seed Co., Guadalupe, Calif.
Celosia	Pyramidalis Flame of Fire	Special Mention	T. Sakata & Co., Yokohama, Japan.
Anchusa	Annual Blue Bird	Special Mention	Watkins & Simpson, London, England.
African Marigold	Golden Beauty, Yellow Beauty, Primrose Queen	Special Mention	Hurst & Son, London, England.
Antirrhinum	Rust Proof	Certificate of Honor	{ F. Lagomarsino & Sons, Sacramento, Calif. Waller-Franklin Seed Co., Guadalupe, Calif. Ferry-Morse Seed Co., San Francisco, Calif. Bodger Seeds, Ltd., El Monte, Calif. Wm. Macdonald Seed Co., Santa Maria, Calif.

## VEGETABLES

Mustard	Southern Giant Curled Longstanding	Gold Medal	Abraham Sluis, Ltd., Enkhuizen, Holland.
Tomato	Asgrow Scarlet Dawn	Gold Medal	Associated Seed Growers, Inc., New Haven, Conn.
Cucumber	Straight Eight	Gold Medal	Ferry-Morse Seed Co., San Francisco, Calif.
Cucumber	Colorado	Award of Merit	J. C. Robinson Seed Co., Waterloo, Nebr.
Cantaloupe	*Sunkist	Award of Merit	J. C. Robinson Seed Co., Waterloo, Nebr.
Tomato	Burpee's Globe	Award of Merit	W. Atlee Burpee Co., Philadelphia, Pa.
Spinach	Viking	Award of Merit	Sluis en Groot, Enkhuizen, Holland.
Sweet Corn	Hybrid Bantam	Award of Merit	Sioux City Seed Co., Sioux City, Ia.
Lettuce	Longstanding White Boston	Special Mention	Francis C. Stokes & Co., Inc., Philadelphia, Pa.
Cabbage	Just Right	Special Mention	Sluis Brothers, Ltd., Enkhuizen, Holland.
Pepper	Asgrow King	Special Mention	Associated Seed Growers, Inc., New Haven, Conn.
Radish	White Pearl	Special Mention	Sluis Brothers, Ltd., Enkhuizen, Holland.

\* "Sunkist" Cantaloupe has been renamed "Imperial"

(Continued on page 96)



# SOO-BRED BANTAM

*An All American Hybrid Sweet Corn*



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True Evergreen  
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## AWARD OF MERIT 1935 ALL AMERICAN SEED TRIALS FOR CANNERS

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Quality you'll be glad to place your labels on.

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16 rowed ears of real size to attract attention.  
Tenderness and flavor that insure enthusiastic satisfaction.

## FOR SEEDSMEN

An item sure to get a dependable volume of repeat orders.  
Certain to make friends for those who introduce it.

1934 crop now gone. Contracts for 1935  
crop should be placed early.

SIoux CITY SEED COMPANY  
SIoux CITY IOWA

SPECIALIZING IN HYBRID SWEET AND FIELD CORNS



## 1934 ALL-AMERICA WINNERS (Continued)

## FLOWERS

Variety	Name	Award	Entered for Trial by
Calendula	Chrysantha or Sunshine	Gold Medal	{ W. Atlee Burpee Co., Philadelphia, Pa., and Bodger Seeds, Ltd., El Monte, Calif.
Petunia	Pink Gem	Gold Medal	Waller-Franklin Seed Co., Guadalupe, Calif.
Larkspur	Rosemond	Gold Medal	Bodger Seeds, Ltd., El Monte, Calif.
Linaria	Fairy Bouquet	Gold Medal	Watkins & Simpson, Ltd., London, England.
Verbena	Dannebrog	Award of Merit	L. Daehnfeldt & Theodor Jensen, Odense, Denmark.
Aster	Los Angeles	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.
Canterbury Bell	Liberty Bell	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Petunia	Maximum All-Double Fringed	Award of Merit	{ Ferry-Morse Seed Co., Detroit, Mich. T. Sakata & Co., Yokohama, Japan.
Hunnemania	Sunlite	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.
Marigold	Dwarf Monarch Strain	Award of Merit	{ Bodger Seeds, Ltd., El Monte, Calif. Hurst & Sons, London, England.
Larkspur	Blue Bell	Special Mention	Bodger Seeds, Ltd., El Monte, Calif.
Verbena	Spectrum Red	Special Mention	Waller-Franklin Seed Co., Guadalupe, Calif.
Aster	Silvery Rose	Special Mention	Bodger Seeds, Ltd., El Monte, Calif.
Chrysanthemum	Eldorado	Special Mention	{ Bodger Seeds, Ltd., El Monte, Calif. Hurst & Sons, London, England.
Scabiosa	Giant Hybrids Mixed	Special Mention	W. Atlee Burpee Co., Philadelphia, Pa.

## VEGETABLES

Radish	Glowing Ball	Gold Medal	Zwaan & Van der Molen, Voorburg, Holland.
Beet	Asgrow Wonder	Gold Medal	Associated Seed Growers, Inc., New Haven, Conn.
Carrot	Morse's Bunching	Gold Medal	Ferry-Morse Seed Co., San Francisco, Calif.
Beet	Perfected Detroit	Award of Merit	J. M. Lupton & Son, Mattituck, L. I., New York.
Cabbage	Penn State Ballhead	Award of Merit	J. M. Lupton & Son, Mattituck, L. I., New York.
Endive	Batavian Full Heart	Award of Merit	Vilmorin, Andrieux & Co., Paris, France.
Cucumber	The Barteldes	Award of Merit	The Barteldes Seed Co., Lawrence, Kansas.
Parsley	Peerless	Award of Merit	Zwaan & Van der Molen, Voorburg, Holland.
Beet	Good for All	Special Mention	Ferry-Morse Seed Co., San Francisco, Calif.
Beet	Little Marvel	Special Mention	Zwaan & Van der Molen, Voorburg, Holland.
Sweet Corn	Kingscross Bantam	Special Mention	Northrup, King & Co., Minneapolis, Minn.
Sweet Corn	Stowell's Evergreen Hybrid	Special Mention	Associated Seed Growers, Inc., New Haven, Conn.

(Continued on page 98)





DAEHNFELDT'S VERBENA DANNEBROG

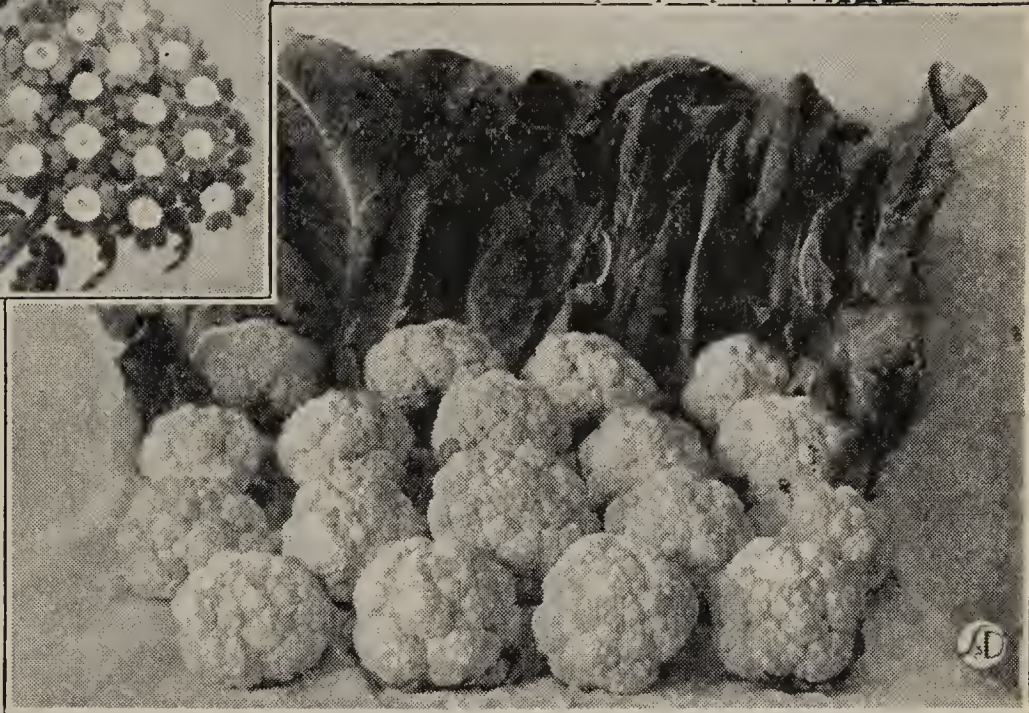
Verbena Dannebrog is OUR creation and ORIGINAL seeds of this beautiful novelty can be obtained from us ONLY. Unfortunately our 1934 crop was extremely limited due to poor growing conditions - and as the demand has been heavy we are entirely sold out.

It will of course be of the utmost help to us to have orders on file before our planting is done.

Might we therefore suggest that you send us YOUR order already NOW for delivery after the 1935 crop.

You will then be sure to get your seeds direct from the ORIGINATOR.

Also CALENDULA JEWEL and PANSY ST. KNUD are noted introductions of ours.



DAEHNFELDT'S PERFECTION IMPROVED, HUNDERUP P. 1922.

In the line of VEGETABLE SEEDS we beg to remind you of our long list of REAL OUTSTANDING strains which have been awarded 1<sup>st</sup> class certificates at competitive trials conducted under control of the Danish government.

Such results can be attained by painstaking and scientific breeding ONLY. Through breeding you get the QUALITY - and quality you MUST have.

Buy seeds of:

DAEHNFELDT'S CERTIFIED STRAINS

And you are sure to get the RIGHT quality.



**L. DAEHNFELDT AND THEODOR JENSEN LTD.**  
BREEDERS AND GROWERS  
**ODENSE - DENMARK**

cb34



## 1933 ALL-AMERICA WINNERS (Continued)

## FLOWERS

Variety	Name	Award	Entered for Trial by
Marigold	Guinea Gold	Gold Medal	.....
Nasturtium	Double Golden Gleam	Gold Medal	Bodger Seeds, Ltd., El Monte, Calif.
Campanula	Annual Canterbury Bells, Mixed	Gold Medal	Waller-Franklin Seed Co., Guadalupe, Calif.
Verbena	Beauty of Oxford, Hybrid	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Lupine	Hartwegi Giants Mixed	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Pansy	Dwarf Swiss Giants	Award of Merit	Vaughan's Seed Store, Chicago, Ill.
Delphinium	Annual Cambridge Blue	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Asters	Wilt Resistant	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.
Verbena	Lavender Glory	Award of Merit	Waller-Franklin Seed Co., Guadalupe, Calif.
Venidium	Fastuosum	Award of Merit	Bodger Seeds, Ltd., El Monte, Calif.

## VEGETABLES

Tomato	Pritchard or Scarlet Topper	Gold Medal	U. S. Dept. of Agriculture.
Cantaloupe	Honey Rock	Gold Medal	J. C. Robinson Seed Co., Waterloo, Nebr.
Bean	New Stringless Green Pod	Gold Medal	Associated Seed Growers, Inc., New Haven, Conn.
Carrot	Asgrow Imperator	Award of Merit	Associated Seed Growers, Inc., New Haven, Conn.
Beet	Ohio Canner	Award of Merit	J. M. Lupton & Son, Mattituck, L. I., New York.
Cucumber	Clark's Special	Award of Merit	Associated Seed Growers, Inc., New Haven, Conn.
Cantaloupe	Improved Perfecto	Award of Merit	Garwood & Woodside, Rocky Ford, Colo.
Watermelon	Graystone	Award of Merit	H. G. Hastings Co., Atlanta, Ga.
Bean	Asgrow Valentine	Award of Merit	Associated Seed Growers, Inc., New Haven, Conn.
Spinach	Nobel	Award of Merit	Zwaan & Van der Molen, Voorburg, Holland.

For Your  
**PROTECTION**  
 and Ours  
**USE THE STICKERS**  
 IN THE BACK OF THE BOOK FACING  
 THE BACK COVER





Asgrow Stringless Green Pod  
Bean  
Gold Medal 1933



Asgrow Scarlet Dawn Tomato  
Gold Medal 1935



Asgrow Wonder Beet  
Gold Medal 1934

## An All-American Trio

Asgrow Seeds Are Well Bred.

### Associated Seed Growers, Inc.

Breeders and Growers of Vegetable Seeds Since 1856

NEW HAVEN, CONN.

Breeding Stations and Production Branches in Eleven States

Distributing Branch Warehouses at Atlanta, Ga.; Indianapolis, Ind., and Salinas, Calif.

## SEED BAG TRIERS

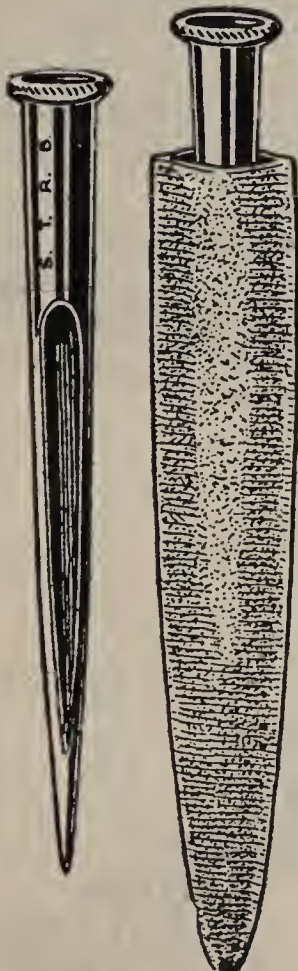
QUICK, SAFE  
CONVENIENT

Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

5 or 6 inches long,  
with leather  
shield,  
Price \$1.00 each,  
\$10.50 per doz.

9 in. long, with  
metal shield,  
Price \$2.00 each.

12 in. long.  
Price \$3.00 each



SEED TRADE REPORTING BUREAU  
325 W. Huron St. CHICAGO, ILL.

1935

*all American*  
AWARD  
of MERIT

### CUCUMBER—Colorado

A long white spine, intense dark green, slender variety. It is quite early, prolific and though longer than Clark's Special, is not as lengthy as The Vaughan. Flesh is good, very similar to The Vaughan. Raised and introduced by J. C. Robinson Seed Co., Waterloo, Nebraska.

### CANTALOUPE—Imperial

Cross from Honey Ball and Hale's Best by the introducer, Clyde Fluke of C. H. Weaver & Co., Brawley, California. Can be thoroughly vine ripened and still shipped long distances. It has orange flesh, a netted yellow fruit of Rocky Ford size, with unusual shipping quality and carrying excellent flavor and texture. The best cropper in a hot, dry season, and it almost never shows spoilage in the field even when quite ripe. Grown and entered by J. C. Robinson Seed Co., Waterloo, Nebraska.

*J.C. Robinson*

SEED COMPANY  
WATERLOO ♦ NEBRASKA



## GROWERS FLOWER SEEDS

### CALIFORNIA

**Bodger Seeds, Ltd.**  
**El Monte, Los Angeles County, Calif.**  
 (See Adv. on Page 33)  
**Pieters-Wheeler Seed Co. (Sweet Peas)**  
**Gilroy, Calif.**  
 (See Adv. on Page 7)  
**Rohnert Co., Waldo (Sweet Peas)**  
**Gilroy, Calif.**  
 (See Adv. on Page 101)  
**Waller-Franklin Seed Co.**  
**Guadalupe, Calif.**  
 (See Adv. on Page 101)  
**Zvolanek, Ant. C. (Sweet Peas)**  
**Lompoc, Calif.**  
**Diener Co., Inc., Richard**  
**Oxnard, Calif.**  
**Shaw's Hybridizing Gardens**  
**Petaluma, Calif.**  
**Ferry-Morse Seed Co. (Sweet Peas)**  
**San Francisco, Calif.**  
 (See Adv. on Page 76)  
**Braslan Seed Growers Co., Inc.**  
**San Jose, Calif.**  
 (See Adv. on Page 93)  
**Kimberlin Seed Co. (Sweet Peas)**  
**San Jose, Calif.**  
**MacDonald Seed Co., The Wm.**  
**Santa Maria, Calif.**  
 (See Adv. on Page 102)

### CANADA

**Steele, Briggs Seed Co., Ltd.**  
**Toronto, Canada**  
 (See Adv. on Page 35)  
**Sunset Seed Co., Ltd.**  
**Victoria, B. C., Canada**

### COLORADO

**Colorado Seed Co. (Evergreen Tree Seed and Columbines)**  
**Denver, Colo.**  
**Rocky Mountain Seed Co.**  
**Denver, Colo.**  
**Grand Junction Seed Co. (Zinnias)**  
**Grand Junction, Colo.**  
 (See Adv. on Page 71)  
**Burrell Seed Growers Co.**  
**Rocky Ford, Colo.**

### CONNECTICUT

**Comstock, Ferre & Co.**  
**Wethersfield, Conn.**  
 (See Adv. on Page 91)

### GEORGIA

**Athens Seed Co.**  
**Athens, Ga.**  
 (See Adv. on Page 57)

### IDAHO

**Woodacres, Fred B. Wood**  
**Boise, Idaho**

### ILLINOIS

**American Bulb Company**  
**Chicago, Ill.**  
 (See Adv. on Page 111)  
**Barnard Co., W. W.**  
**Chicago, Ill.**  
**Vaughan's Seed Store**  
**Chicago, Ill.**  
**Condon Bros. Seedsmen**  
**Rockford, Ill.**

# Standard Seed Farms Company

## WHOLESALE GROWERS GARDEN SEEDS

### Stockton California

**BEET**

**CARROT**

**CELERY**

**ENDIVE**

**LETTUCE**

**MUSTARD**

**ONION**

**PARSLEY**

**PARSNIP**

**RADISH**

**SALSIFY**

**SWEET PEAS**

**SWISS CHARD**

**Cable Address**  
**"Stanseed"**

**Post Office**  
**Box 572**





## **"MERIT" FLOWER SEEDS** **1934 Novelties**

Petunia Nana Compacta Martha Washington	New Petunia Giant Double Fringed Crimson
Calendula Orange Shaggy	Aster Single Imperial Red
Stock Double Giant Excelsior Deep Rose	Aster California Giant Sunshine White
New Verbena Nana Erecta Violet Bouquet	Aster California Giant Sunshine Lavender
Annual Canterbury Bell Mission Bell	Aster California Giant Sunshine Rose
Annual Canterbury Bell Blue Bell	Aster California Giant Sunshine Shell Pink
Delphinium Bellamosum Improved	
New Petunia Giant Double Fringed Heliotrope	

**WALLER-FRANKLIN SEED CO.**  
**GUADALUPE, CALIFORNIA, U. S. A.**

## **WALDO ROHNERT COMPANY**

**GILROY CALIFORNIA**

REGISTERED CABLE AND TELEGRAPHIC ADDRESS, ROHNERT, HOLLISTER

### **—Specialties—**

BEET	MUSTARD
CHARD	ONION
CARROT	PARSLEY
CELERY	PARSNIP
ENDIVE	RADISH
LETTUCE	SALSIFY
MIXED SWEET PEAS	

Contract Prices for Crop 1935 Mailed on Application

## **WHOLESALE SEED GROWERS**

**FORTY-TWO YEARS OF SEED GROWING**



**GROWERS FLOWER SEEDS—Continued****LOUISIANA**

Kalmbach-Burckett Co., Inc.  
Shreveport, La.

**MASSACHUSETTS**

Donovan, James  
Saugus, Mass.

**NEW JERSEY**

Leonard, I. & J. L.  
Ionia, N. J.  
Forbes & Co., Alex  
Newark, N. J.

**NEW YORK**

Harris Co., Joseph  
Coldwater, N. Y.  
Page Seed Co.  
Greene, N. Y.  
(See Adv. on Page 57)  
Herbst Bros., Inc.  
New York, N. Y.  
(See Adv. on Pages 73 and 131)  
Stumpp & Walter Co.  
New York, N. Y.  
Vaughan's Seed Store  
New York, N. Y.

**NORTH CAROLINA**

Buxton White Seed Co.  
Asheville, N. C.

**OHIO**

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
(See Adv. on Page 65)

**OREGON**

Ellis, Mrs. Merton G. (Pansy)  
Canby, Ore.  
Harrold's Pansy Gardens (Pansy)  
Grants Pass, Ore.  
Steele's Pansy Gardens (Pansy)  
Portland, Ore.  
Hood Acres  
Troutdale, Ore.

**PENNSYLVANIA**

Landreth Seed Co., D.  
Bristol, Pa.  
(See Adv. on Page 3)  
Burpee Co., W. Atlee  
Philadelphia, Pa.  
(See Adv. on Page 103)

**TEXAS**

Nicholson Seed Co., Robt.  
Dallas, Texas

**VERMONT**

Hawkins, Budd D.  
Reading, Vt.

**WISCONSIN**

Toole, W. A.  
Baraboo, Wis.  
Rugowski Seed Co., J. K.  
Manitowoc, Wis.  
Jung Seed Co., J. W.  
Randolph, Wis.

## FLOWER SEEDS—CALIFORNIA'S BEST SPECIALIZING IN FLORIST'S STRAINS

We are wholesale growers of the  
Highest Quality in Annual and Perennial flower  
seeds for the discriminating trade

ASK FOR OUR CATALOG AND PRICES

### THE WILLIAM MACDONALD SEED CO.

Exclusive Flower Seed Growers

**SANTA MARIA**

**CALIFORNIA**

## Use a Sticker (Page 181) When Writing Advertisers

They stick with a lick, unlike the mule which  
you lick with a stick. Thanks, it will help us

## HELP YOU



**Burpee's Seeds Grow**

**PETUNIA**  
HYBRIDS MIXED

**W. ATLEE BURPEE CO.**  
Seed Growers. Philadelphia, U.S.A.

*The Packet in the Foreground Shows Exact Size*

Be Sure You Stock These Fast-Selling

# Burpee's Seeds *in Colored Packets*

RETAILING AT 10c EACH—LIBERAL DISCOUNTS

Here's a source of extra business you can't overlook. Burpee's most popular flower and vegetable seeds are now offered in attractive 10c packets, printed in full colors. Last year was the first time Burpee's seeds had been sold to the public in this form through the trade. There is a tremendous market for this business. Get your share of it by carrying a complete stock.

Write for Burpee's Red List

which contains a full list of Burpee's Seed in packets, as well as a list of all Burpee's Sweet Peas and other flower and vegetable seeds, with wholesale prices for seedsmen and dealers.

**W. ATLEE BURPEE CO.**  
**792 Burpee Bldg. Philadelphia**



# LONGEVITY OF FLOWER SEEDS

Prepared by Bodger Seeds, Ltd., El Monte, California

Flowers	Number of Seeds to the Ounce	Lon- gevity (Years)	Period of Germi- nation (Days)	Flowers	Number of Seeds to the Ounce	Lon- gevity (Years)	Period of Germi- nation (Days)
Achillea (The Pearl)....	200,000	5	10-15	Helichrysum .....	40,000	1-2	5-10
Aconitum .....	10,000	3	180	Heliotrope .....	55,000	1-2	30
Acroclinium .....	9,000	3	12	Hesperis .....	16,000	3-4	15
Ageratum .....	225,000	4	5-10	Hibiscus .....	4,000	3-4	5-7
Agrostemma .....	60,000	4	8-18	Hollyhock .....	3,500	3-4	10-30
Alyssum .....	60,000	4	5-8	Humulus .....	2,500	1-2	8-10
Amaranthus .....	30,000	4-5	5-10	Impatiens .....	60,000	2	15-30
Anchusa (Italica).....	1,200	3	30	Ipomea (Grandiflora)....	100	3-4	10-12
Anemone .....	40,100	2	20-60	Kochia .....	50,000	1-2	10
Antirrhinum .....	150,000	3-4	8-12	Larkspur (Annual).....	14,000	2-3	20
Aquilegia .....	17,500	2	12-60	Lathyrus (Latifolius)....	600	3-4	60
Asparagus (Plum. & Spreng.) .....	650	1-2	15-30	Lavender .....	30,000	1-2	30
Aster .....	12,000	1-2	5-10	Linum .....	9,000	5	10-15
Balloon Vine.....	400	3-4	15	Lobelia .....	750,000	3-4	5-20
Balsam Flower.....	3,500	5-6	8-10	Lupinus .....	1,800	3-4	5-10
Balsam Apple.....	250	4	30	Lychnis .....	65,000	2-3	10-15
Baptisia .....	2,500	3-4	30-60	Marigold (African).....	9,000	2-3	5-10
Bellis .....	200,000	2-3	5-10	Marigold (French).....	10,000	2-3	5-10
Blanket Fl. (Gaillardia Gf.) .....	10,000	4	20	Marvel of Peru.....	350	2-3	8-20
Boltonia .....	100,000	5	30	Matricaria .....	150,000	2-3	10-12
Brachycome .....	150,000	3-4	10	Maurandia .....	70,000	2	15-30
Browallia .....	70,000	2-3	5-10	Mesembryanthemum .....	200,000	3-4	5-10
Calendula .....	3,000	4-5	5-10	Mignonette .....	30,000	2-4	8-10
Calliopsis .....	100,000	2-3	8-10	Mimosa .....	4,500	2-3	10-15
Campanula (Medium)....	125,000	3	10-15	Mimulus .....	1,000,000	3-4	5-10
Canary Bird Flower.....	400	3	10	Myosotis .....	55,000	2	10-15
Candytuft .....	10,000	3	5-10	Nasturtium .....	250	7-8	8-10
Canna .....	100	3	5-10	Nemesia .....	100,000	2-3	20
Cardinal Climber.....	1,000	5	10-20	Nicotiana .....	200,000	3-4	5-10
Carnation .....	15,000	4-5	10-15	Nigella .....	12,000	1-2	10-15
Celosia .....	30,000	4	8-10	Pansy .....	24,000	2-3	8-10
Centaurea (Cyanus)....	7,000	3	8-10	Papaver .....	125,000	3-4	6-10
Chinese Wool Flower....	30,000	4	8-10	Penstemon .....	60,000	2	8-15
Chrysanthemum (Single Annual) .....	10,000	6-7	8-10	Petunia .....	152,000	3-4	8-10
Cineraria .....	100,000	3-4	8-10	Phlox .....	15,000	1-3	8-10
Clarkia .....	100,000	2-3	10	Platycodon .....	30,000	2-3	12-15
Cobea .....	400	2	15-20	Portulaca (Double).....	300,000	3	8-10
Coleus .....	115,000	2	10-15	Portulaca (Single).....	300,000	3	8-10
Convolvulus (Major)....	1,500	4-5	5-10	Polyanthus .....	30,000	2	60
Coreopsis .....	12,000	2	5-10	Poppy (Oriental).....	150,000	5	15
Cosmos .....	5,500	3	8-10	Primula (Sinensis).....	20,000	2	10-15
Cypress Vine.....	2,200	4-5	10-20	Pueraria (Kudzu Vine)..	2,500	4	30
Dahlia .....	3,000	2-3	10-20	Pyrethrum (Aureum)....	200,000	2	10-12
Daisy, African.....	10,000	2	20	Ricinus (Zanzibariensis). Rudbeckia (Bicolor Superba) .....	50 90,000	2 2	12-15 8-10
Daisy (Bellis).....	200,000	2-3	8-10	Saponaria (Vaccaria)....	6,000	2	10
Datura .....	2,000	3-4	15-20	Salpiglossis .....	125,000	7-8	5-10
Delphinium .....	15,000	2	20	Salvia (Scarlet Sage)....	10,000	2	5-10
Dianthus .....	28,000	5-6	5-10	Scabiosa .....	5,000	2-3	10-15
Dianthus Barbatu.....	27,000	3	8-10	Scarlet Flax (See Linum)			
Digitalis .....	200,000	2	10-15	Schizanthus .....	100,000	4-5	5-10
Dolichos .....	115	4	10-15	Shasta Daisy.....	25,000	1-2	20
Eschscholtzia .....	15,000	2	5-10	Stocks .....	18,000	5-6	3-10
Euphorbia (Variegata)...	2,500	3-4	10-12	Stokesia .....	3,500	2	10-15
Gaillardia (Picta).....	15,000	2	10-15	Thunbergia .....	1,200	2	10-15
Gentiana .....	6,000	3	10-20	Verbena .....	10,000	1-2	10-15
Geum .....	15,000	2	15-60	Vinca .....	22,000	1-2	10-12
Godetia .....	100,000	3	6-10	Viola .....	25,000	1-2	8-10
Gomphrena .....	5,800	2-3	10-15	Wallflower .....	15,000	5	5-10
Gourds (Mixed).....	300	5-6	12-15	Wild Cucumber.....	125	2	10-20
Gypsophila (Elegans)....	25,000	2	5	Xeranthemum .....	20,000	2	7-10
Gypsophila (Paniculata).	35,000	4	15	Zinnia .....	4,000	6-7	5-10
Helenium .....	120,000	3-4	10-20				
Helianthus (Cucumernfolius) .....	9,000	2-3	5-10				
Helianthus (Double Chrys.) .....	700	2-3	5-10				



# Seed World Advertising Produces Results



## Because—

This publication is read by dealers in seeds and allied lines who are **PAID SUBSCRIBERS.**

Seed World maintains paid correspondents in eleven central markets—Washington, Toronto, St. Louis, Boston, San Francisco, Philadelphia, Milwaukee, Minneapolis, New York, Kansas City and Louisville.

More than forty authoritative representatives contribute articles on successful retail merchandising methods. Most of these men travel by auto through all parts of the United States and Canada, making direct contacts with the retail merchants. In this manner Seed World is always in contact with this enormous buying field of the retail seed merchant.

These articles cover every phase of retail merchandising, building the catalog, store interiors, collections, local advertising, etc. All are written by experts.

## ENORMOUS BUYING FIELD

The clientele of the seed dealer today is not only the suburban gardener and truck grower—but the real dirt farmer—the man with a big acreage and big buying power.

Seed World circulates to seed store owners with a potential buying power of **twelve and one-half million people.** In addition to the retail store buyers, the mail order seedsmen reach annually another twenty-seven million five hundred thousand buyers through the distribution of their catalogs. Visualize what a buying power **FORTY MILLION BUYERS REPRESENT!**

The annual sales of merchandise sold by the seed trade other than seed amount to one hundred million dollars. In the last few years many items have been introduced and very successfully sold in this trade, thus producing an enormous business and making it one of the most outstanding distributing industries in the country today.

The seed trade can be a very profitable outlet for your product; get in touch with Seed World at once and let them, with their years of experience in this field, advise you on selling it.

# SEED WORLD

325 W. Huron Street

CHICAGO, ILL.



## FOREIGN FLOWER SEEDS

### AUSTRALIA

Anderson & Co., Ltd., Seedsmen  
Sydney, N. S. W., Australia  
Fosters, Ltd.  
Sydney, N. S. W., Australia  
Gill & Searle  
Melbourne, Australia  
Hackett, Ltd., E. & W.  
Adelaide, S. A., Australia  
Law Somner Pty., Ltd.  
Melbourne, Victoria, Australia  
Martin & O'Keefe, Ltd.  
Sydney, N. S. W., Australia  
Railton, James  
Melbourne, Victoria, Australia  
Shepherd & Son, Ltd., P. L. C.  
Sydney, N. S. W., Australia  
Watters & Sons, Ltd.  
Melbourne, Victoria, Australia  
Yates & Co., Ltd., Arthur  
Sydney, N. S. W., Australia

### CANARY ISLANDS

Wildpret Bros.  
Port Orotava, Teneriffe, Canary Islands

### CHINA

Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China

### DENMARK

L. Daehnfeldt & Theodor Jensen, Ltd.  
Odense, Denmark  
(See Adv. on Page 97)  
Ohlsen's Enke, J. E.  
Copenhagen, Denmark  
(See Adv. on Page 69)

### ENGLAND

Bunting & Co., G. A.  
London, W. C. I., England  
Cooper, Taber & Co., Ltd.  
London, England  
Harrison & Sons  
Leicester, England  
Hurst & Son  
London, England  
Kelway & Son (1933), Ltd.  
Langport, England  
(See Adv. on Page 107)  
King & Co., Ltd., E. W.  
Coggeshall, Essex, England  
Sharpe & Co., Ltd., Chas.  
Sleaford, England  
Watkins & Simpson, Ltd.  
London, England

### FRANCE

Barbier & Fils, P. A.  
St. Remy-de-Provence (Bouches du  
Rhone), France  
Cayeux & Le Clerc  
Paris, France  
Clause, L.  
Bretigny-Sur-Orge (S. & O.), France.  
Honore Roumanille & Fils  
St. Remy-de-Provence (Bouches du  
Rhone), France  
Huber & Co., Ch.  
Hyeres-les-Palmiers (Var), France  
Moreau Bros.  
Brain-Sur-l'Authion (Maine & Loire),  
France  
Perrin, Louis  
St. Remy-de-Provence (Bouches du  
Rhone), France  
Rachet Freres  
St. Remy-de-Provence (Bouches du  
Rhone), France  
Rivoire Pere & Fils  
Lyon (Rhone), France  
Roumanille Lafayette Pere & Fils  
St. Remy-de-Provence (Bouches du  
Rhone), France  
Roustan Servan & Cie  
St. Remy-de-Provence, France  
Simon Louis Freres & Cie  
Bruyeres-le-Chatel (S. & O.), France  
Tezier Freres  
Valence-Sur-Rhone (Drome), France  
Vilmorin Andrieux & Co.  
Paris, France

### GERMANY

Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)  
Binnewics, E. (Cyclamen)  
Alfeld, Germany  
Bitterhoffsohn, August  
Berlin, Germany  
Dippe Gebruder, A. G.  
Quedlinburg, Germany  
Fischer, Ferdinand (Cyclamen)  
Wiesbaden-Aukamm, Germany  
Haubner, August  
Eisleben, Germany  
Heinemann, F. C.  
Erfurt, Germany  
Hesse & Sohn, Robt.  
Rieder Quedlinburg, Germany  
Mette, Heinr.  
Quedlinburg, Germany  
(See Adv. on Page 107)  
Muller, Heinrich  
Neu Dietendorf, Germany  
Pape & Bergmann  
Quedlinburg, Germany  
Sachs, David  
Quedlinburg, Germany  
Teicher, Paul  
Striegau, Germany  
Weigelt & Co.  
Erfurt, Germany  
Wrede, H. (Pansy)  
Lueneburg, Germany  
Zacharias, Paul  
Ermsleben, Germany

### HOLLAND

Rood & Zoon, P.  
Bovenkarspel, Holland  
Sluis Bros., Ltd.  
Enkhuizen, Holland  
Sluis & Groot's Zaadteelt & Zaadhandel  
Enkhuizen, Holland  
Vis Bros.  
Enkhuizen, Holland

### HUNGARY

Hungarian Seed Culture Co., Ltd.  
Budapest, Hungary  
Kertesz, Ludwig  
Budapest, Hungary

### INDIA

Ghose & Co., G.  
Darjeeling, India

### ITALY

Bulleri, Francesco  
Scafati, Italy  
Ditta, D'Anna Francesco  
San Giovanni A Teduccio, Italy  
Herb, M.  
Naples, Italy  
Mennella, Carmine Faraone  
Torre Del Greco (Near Naples), Italy  
(See Adv. on Page 85)

### JAPAN

Nishikata & Son  
Yokohama, Japan  
Sakata & Co., T.  
Yokohama, Japan  
(See Adv. on Pages 73 and 131)  
Takii & Co., Ltd.  
Kyoto, Japan  
Tokyo Konoen, Ltd.  
Shibuya, Tokyo, Japan  
Yamato Seed & Plant Co., Ltd.  
Mejiro, Tokyo, Japan

### SWITZERLAND

Correvon, H.  
Chene Bourg, Geneva, Switzerland  
Dammann, F.  
Lugano, Switzerland  
(See Adv. on Page 87)  
Haubensak Sons, Fr.  
Basel, Switzerland  
Mauser, Emil  
Zurich, Switzerland  
Muller & Co., E. S. A.  
Zurich, Switzerland



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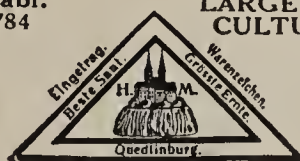
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# BULBS, PLANTS AND MISCELLANEOUS SEEDS

## BULBS—AMERICAN DEALERS

Aggeler & Musser Seed Co.  
Los Angeles, Calif.

Alexander, J. K.  
E. Bridgewater, Mass.

American Bulb Co.  
Chicago, Ill.  
(See Adv. on Page 111)

Brown Bulb Ranch  
Capitola, Calif.

Burpee Co., W. Atlee  
Philadelphia, Pa.  
(See Adv. on Page 103)

Cornell Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)

Cowee, Arthur  
Berlin, N. Y.

Croom & Bro., John F.  
Magnolia, N. C.

Dreer, Henry A.  
Philadelphia, Pa.

Ellis Bulb Gardens, Merton G.  
Canby, Ore.

Fight Floral Co.  
New York, N. Y.

Fussell, J. B.  
Rose Hill, N. C.

Gill Bros. Seed Co. (Dahlia)  
Portland, Ore.

Grootendorst, A. M.  
Benton Harbor, Mich.

Guille, Walter J.  
New York, N. Y.  
(See Adv. on Page 111)

Henderson & Co., Peter  
New York City, N. Y.

Henry & Lee  
New York, N. Y.

Holland-American Seed Co.  
Grand Rapids, Mich.

Hyde Co., H. A.  
Watsonville, Calif.

Ireland, Z. Jay  
Pleasant Valley, N. Y.

Irwin, Roman J.  
New York, N. Y.

Kunderd, A. E. (Gladiola)  
Goshen, Ind.

Larson, Leonard C.  
Portland, Ore.

Lawler, George  
Tacoma, Wash.

Leonard Seed Co.  
Chicago, Ill.  
(See Adv. on Third Cover)

Main, Arthur B.  
Santa Cruz, Calif.

McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)

Michell Co., Henry F.  
Philadelphia, Pa.

Mount Arbor Nurseries  
Shenandoah, Iowa

Quality Seed & Bulb Co.  
Chicago, Ill.

Rynveld & Sons  
New York, N. Y.

Schwake & Co., Inc., Chas.  
New York, N. Y.

St. Louis Seed Co.  
St. Louis, Mo.

Skidelsky & Co., S. S.  
New York, N. Y.

Stumpp & Walter Co.  
New York City, N. Y.

Van Waveren & Son, Inc., M.  
New York, N. Y.

Vaughan's Seed Store  
Chicago, Ill.

Vos & Son, P.  
Grand Rapids, Mich.

Ward & Co., R. M.  
New York, N. Y.

## BULBS—FOREIGN DEALERS

### FRANCE

Lemaire & Julien  
Paris, France

### GERMANY

Berham, Chr.  
Stendal, Germany

Benary, Ernst  
Erfurt, Germany  
(See Adv. on Page 107)

Chehler, Carl  
Halberstadt, Germany

Haage & Schmidt  
Erfurt, Germany

Heinemann, F. C.  
Erfurt, Germany

Hesse & Sohn, Rob.  
Rieder am Hacz, Germany

Kaiser, Ferdinand  
Eisleben, Germany

Leib, Wilhelm  
Arnstadt, Germany

Lieban & Co.  
Erfurt, Germany

Lorenz, Chr.  
Erfurt, Germany

Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China

Pabst, Carl  
Erfurt, Germany

Pape & Bergmann  
Quedlinberg, Germany

Pflzer, Wilhelm  
Stuttgart, Germany

Putz, Otto  
Erfurt, Germany

Reine, Schoo & Co.  
Fornosch-Holstein, Germany

Roemer, Friedrich  
Quedlinberg, Germany

Schraeder, C. G.  
Saltwedel, Germany

Stenger & Rotter  
Erfurt, Germany

Wehranpfannig, A.  
Quedlinberg, Germany

Wiegelt & Co.  
Erfurt, Germany

### HOLLAND

Byvoet Bros.  
Overeen, Haarlem, Holland

De Graaf Bros.  
Noordwyk, Holland

De Graaf & Sons, H.  
Lisse, Holland

Eldering & Son, W. J.  
Overeen, Holland

Grullemans & Sons, J. J.  
Lisse, Holland

Jonkheer & Sons, C.  
Hillegom, Holland

Segers Brothers  
Lisse, Holland

Segers, Gerrit  
Lisse, Holland

Steelman & Sons, C. J.  
Sassenheim, Holland

Straathof, L. H.  
Hillegom, Holland

Tegelaar Bros.  
Lisse, Holland

Van Der Schoot, R. A.  
Hillegom, Holland

Van Der Veld, George  
Lisse, Holland

Van Waveren Stamhois Nurseries  
Hillegom, Holland



## BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued

## Bulbs—Continued

## JAPAN

Bunting & Co., Isaac  
Yokohama, Japan

Sakata & Co., T.  
Yokohama, Japan

(See Adv. on Pages 73 and 131)

## SWEDEN

Holmberg, Algot & Son  
Norrköping, Sweden

## NURSERY STOCK

Bohlender Sons, Peter  
Tippecanoe City, Ohio  
Clinton Falls Seed & Nursery Co.  
Owatonna, Minn.  
Cutler & Downing Co.  
Benton Harbor, Mich.  
Elliott, Ltd., Clarence  
Stevenage, Herts, England  
Ernst Nurseries  
Eaton, Ohio  
Forest Nursery Co.  
McMinnville, Tenn.  
Gardens of the Blue Ridge  
Ashford, No. Carolina  
Harmel Peony Co.  
Berlin, Md.  
Harmon Nursery  
Prospect, Ohio  
Hill Nursery, D., The  
Dundee, Ill.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
North-Eastern Forestry Co., The  
Cheshire, Conn.  
Northfield Seed & Nursery Co.  
Northfield, Minn.  
Onarga Nursery Co.  
Onarga, Ill.  
Piedmont Forestry Co.  
Bound Brook, N. J.  
Rice Nurseries, T. W.  
Geneva, N. Y.  
Shenandoah Nurseries  
Shenandoah, Iowa  
Smith Co., W. & T.  
Geneva, N. Y.  
State Nursery & Seed Co.  
Helena, Mont.  
Storrs & Harrison Co.  
Painesville, Ohio  
Washington Nursery Co.  
Toppenish, Wash.  
Weaver Gardens Co., The  
Wichita, Kans.  
Westminster Nurseries, The  
Westminster, Md.  
Wickliffe, Ray (Osage Orange Seed)  
Seneca, Kans.  
Willadean Nurseries, Inc.  
Sparta, Ky.  
Willis Nursery Co., The  
Ottawa, Kan.  
Wilson & Co., Inc., C. E.  
Manchester, Conn.

## CACTI

Clark, Mrs. Fred  
Van Horn, Texas  
Consolidated Displays, Inc.  
Chicago, Ill.

Desert Plant Co.  
El Paso, Texas  
Schroeder, T. R.  
Chicago, Ill.

## EVERGREENS

Appalachian Evergreen Co.  
Doeville, Tenn.  
Conwell, Inc., H. Ernest  
Milton, Dela.  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
North-Eastern Forestry Co.  
Cheshire, Conn.  
Rosebank Nursery Co.  
Huntsville, Ala.  
State Nursery & Seed Co.  
Helena, Mont.  
Swedberg Bros. Nurseries  
Battle Lake, Minn.

## FERNS

Ferndale Nursery  
Askov, Minn.

## FRUIT TREES

Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
May Seed & Nursery Co.  
Shenandoah, Iowa  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Potter Sales Nursery Co.  
McMinnville, Tenn.  
Rosebank Nursery Co.  
Huntsville, Ala.  
Smithville Nursery Co.  
Smithville, Tenn.

## FRUIT—SMALL

Bauer Plant Co., J. A. (Strawberry)  
Judsonia, Ark.  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Schifferli & Son Nurseries, The F. E.  
Fredonia, N. Y.  
Thomas, W. W. (Strawberry)  
Anna, Ill.

## GRAPE VINES

Mount Arbor Nurseries  
Shenandoah, Iowa  
Munson Nurseries  
Denison, Texas

## ORNAMENTALS

Brainard's Nurseries & Greenhouses, Inc.  
Des Moines, Iowa  
Cumberland Valley Nursery Co., Inc.  
McMinnville, Tenn.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
Wilson & Co., C. E.  
Manchester, Conn.



**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****PERENNIALS**

Cottage Gardens, The (Peonies)  
Lansing, Mich.  
Locust Valley Dahlia Farms  
Cold Springs Harbor, L. I., N. Y.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Naperville Nurseries  
Naperville, Ill.  
Wilson & Co., C. E.  
Manchester, Conn.

**ROSE BUSHES**

Howard Rose Co., Inc.  
Hemet, Calif.  
Jackson & Perkins Co.  
Newark, N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Wilson Co., C. E.  
Manchester, Conn.

**WATER PLANTS**

Aquatic Plant Nursery  
New Orleans, La.  
Auburndale Goldfish Co.  
Chicago, Ill.  
(See Adv. on Page 150)  
Beldt's Aquarium  
St. Louis, Mo.  
Lakeview Ponds, The  
Mt. Airy, Cincinnati, Ohio  
Loveland Goldfish Farms  
Loveland, Ohio  
Pacific Goldfish Farm  
Westminster, Calif.  
(See Adv. on Page 149)  
Terrell's Aquatic Farm  
Oshkosh, Wis.  
Woodford Water Gardens  
Van Nuys, Calif.

**ONION SET GROWERS**

Algers, K. W.  
Crystal City, Texas  
Barteldes Seed Co.  
Denver, Colo.  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Canada  
Chester Co., The H. H.  
Chicago, Ill.  
Condon Bros., Seedsmen  
Rockford, Ill.  
Corneli Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)  
Dimitracopoulos, M., and P. Xenakis  
Salonica, Greece  
Dutch Valley Growers, Inc.  
So. Holland, Ill.  
Grand Junction Seed Co.  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Gridley Maxon Co.  
Chicago, Ill.  
Hayes Labish Farms  
Salem, Oregon  
Hollenbach, Peter  
Chicago, Ill.  
Illinois Onion Set Growers Exchange  
South Holland, Ill.  
Joannides, D. N.  
Salonica, Greece  
Kaufmann's Onion Set Warehouse  
South Holland, Ill.  
Landreth Seed Co., D.  
Bristol, Pa.  
(See Adv. on Page 3)  
Leonard Seed Co.  
Chicago, Ill.  
(See Adv. on Third Cover)  
Meeters, Inc.  
Lansing, Ill.  
(See Adv. on Page 111)

Northrup, King & Co.  
Minneapolis, Minn.

(See Adv. on Page 5)

Pals Bros.  
So. Holland, Ill.  
Rau, Lawrence  
Chicago, Ill.  
Saltiel, Fils D'Isac S.  
Salonica, Greece  
Schilder Bros.  
Chillicothe, Ohio  
Steele, Briggs Seed Co.  
Toronto, Canada  
(See Adv. on Page 35)

Van Baren Bros.  
So. Holland, Ill.  
Van Deursen, J. S.  
Chicago, Ill.  
Vaughan's Seed Store  
Chicago, Ill.  
Waterman, Chas.  
So. Holland, Ill.  
Woodruff & Sons, F. H.  
Milford, Conn.  
(See Adv. on Front Cover)

**PLANTS—FLOWER**

Alexander, J. K.  
East Bridgewater, Mass.  
American Bulb Co.  
Chicago, Ill.  
(See Adv. on Page 111)  
Brazil Dahlia Farm  
Indianapolis, Ind.  
Bushy Flower Gardens  
Bushy, Va.  
Capital Fuel & Feed Co.  
Phoenix, Ariz.  
Chautauqua Flower Fields  
Bemis Point, N. Y.  
Hand Seed Co., Inc., A. M.  
Portland, Ore.  
Hardy Plant & Pansy Farm  
Baraboo, Wis.  
Hyde Co., H. A.  
Watsonville, Calif.  
Ireland, Z. Jay  
Pleasant Valley, N. Y.  
Lagomarsino & Sons, F.  
Sacramento, Calif.  
(See Adv. on Page 34)  
Lind Plant Farms  
Cotulla, Texas  
McGregor Bros. Co.  
Springfield, Ohio  
McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)  
Merritt, John W.  
Farmingdale, L. I., N. Y.  
Mount Arbor Nurseries  
Shenandoah, Iowa  
Myers & Scott  
Van Buren, Ark.  
Onarga Nursery Co.  
Onarga, Ill.  
Rosebank Nursery Co.  
Huntsville, Ala.  
Schaumberg, Henry  
Hammonton, N. J.  
Schmeiske, Wm. F.  
Kirkwood, N. Y.  
Skidelsky & Co., S. S.  
New York City, N. Y.  
Smith Plant Farm, E. C.  
Milano, Texas  
State Nursery & Seed Co.  
Helena, Mont.  
Texas Seed & Plant Co.  
Dallas, Texas

**VEGETABLE PLANTS**

Albany Plant & Seed Co.  
Albany, Ga.  
Alger, K. W. (Grower)  
Crystal City, Texas  
Alvy, Jack  
Van Buren, Ark.  
Blackshear Plant Co.  
Blackshear, Ga.





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**KANSAS**



## BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued

## Vegetable Plants—Continued

Bullock's Plant Farm  
White Springs, Fla.  
Carlisle Plant Farms  
Valdosta, Ga.  
Carolina Seed & Plant Co.  
Florence, S. C.  
Clifton, J. A.  
Russellville, Ark.  
Councill Seed Co.  
Franklin, Va.  
Crescent Farms,  
Sumner, Ga.  
Fulwood, P. D.  
Tifton, Ga.  
(See Adv. on Page 23)  
Geraty & Co., Wm. C.  
Yonges Island, S. C.  
Grand Junction Seed Co.  
Grand Junction, Colo.  
(See Adv. on Page 71)  
Grossmann & Son, W.  
Petersburg, Va.  
Hammell Seed Farms, Geo. Q.  
Cedarville, N. J.  
Harvey Seed Co.  
Montgomery, Ala.  
Hoopes Co., J. E. (Plants and Asparagus  
Roots)  
Muscatine, Iowa  
Irrigated Plant Farms  
Thorndale, Tex.  
Jefferson Farms, The  
Albany, Ga.  
Kille, Willard B.  
Swedesboro, N. J.  
Lagomarsino & Sons, F.  
Sacramento, Calif.  
(See Adv. on Page 34)  
Ledden & Son, Orol  
Sewell, N. J.  
Lehmann's Seed Store  
Baton Rouge, La.  
Leonard, I. & J. L.  
Iona, N. J.  
Lind Plant Farm  
Cotulla, Texas  
May & Son, Inc., W. H.  
Alexandria, Va.  
Myers Seed & Plant Co.  
Tifton, Ga.  
Old Dominion Plant Co.  
Franklin, Va.  
Omega Plant Co.  
Omega, Ga.  
Parker Farms  
Tifton, Ga.  
Parks, Walter  
Darlen, Ga.  
Piedmont Plant Co.  
Albany, Ga.  
Quality Seed House  
Chickasha, Okla.  
Rochelle & Sons, F. W.  
Chester, N. J.  
Rochelle, Paul F.  
Morristown, N. J.  
Ross Bros. Seed Co.  
Wichita, Kan.  
Shreve & Son, J. W.  
Andalusia, Ala.  
Service Plant Co.  
Omega, Ga.  
Sims Plant Co.  
Pembroke, Ga.  
Steiner Branch Seed Co.  
Grovetown, Ga.  
Stevenson, G. W.  
Fordyce, Ark.  
Tidewater Plant Co.  
Franklin, Va.  
Todd, Geo. M.  
Greensboro, N. C.  
Valdosta Plant Co.  
Valdosta, Ga.  
Van Antwerp Seed Co.  
Mobile, Ala.  
Vickery Plant Co.  
Ennis, Tex.

Wards Gardens  
Mobile, Ala.  
Warrick, Ray W.  
Crozet, Va.  
Williams, W. W.  
Quitman, Ga.  
Wood & Son, T. W.  
Richmond, Va.  
Wyatt & Sons Co., Job P.  
Raleigh, N. C.

## SEEDS—MISCELLANEOUS

## CANARY SEED

Blamberg Bros., Inc.  
Baltimore, Md.  
(See Adv. on Page 23)  
Cornell Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)  
Crawford, Keen & Co.  
New York City, N. Y.  
De Groot, Van Nes, & Co.  
Rotterdam, Holland  
Dickinson Co., Albert  
Chicago, Ill.  
(See Adv. on Page 132)  
Duryea Seed Co., Inc.  
New York, N. Y.  
(See Adv. on Page 63)  
German, Gale T.  
New York, N. Y.  
Handelsverband G. M. b. H.  
Danzig  
(See Adv. on Page 69)  
Herbst Bros.  
New York City, N. Y.  
(See Adv. on Pages 73 and 131)  
Hinton & Co., Inc.  
New York, N. Y.  
Johnson, Inc., J. Oliver  
Chicago, Ill.  
Justrite Co., The  
Milwaukee, Wis.  
Kellogg-Kelly Seed Co.  
St. Joseph, Mo.  
(See Adv. on Page 61)  
Magnesia Products Co.  
Milwaukee, Wis.  
Mangelsdorf & Bro., Ed. F.  
St. Louis, Mo.  
(See Adv. on Page 13)  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
(See Adv. on Page 65)  
Philadelphia Seed Co.  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Radwaner Seed Co., I. L.  
New York, N. Y.  
(See Adv. on Page 63)  
Radway-McCullough Seeds, Inc.  
New York, N. Y.  
(See Adv. on Page 63)  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
(See Adv. on Page 40)  
St. Louis Seed Co.  
St. Louis, Mo.  
Von Damm, F. A.  
Brooklyn, N. Y.

## LAWN GRASS SEED

Aggeler & Musser Seed Co.  
Los Angeles, Calif.  
American Seed Co.  
Detroit, Mich.  
Arizona Feed & Seed Association  
Phoenix, Ariz.  
Bagnall, Howard E.  
Kansas City, Mo.  
Barnard Co., W. W.  
Chicago, Ill.



## BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued

## Lawn Grass Seed—Continued

Chanderlin Seed Co.  
New York, N. Y.  
**Cornell Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
**Crossland, W. H.**  
Milwaukee, Wis.  
(See Adv. on Page 57)  
**Dickinson Co., Albert**  
Chicago, Ill.  
(See Adv. on Page 132)  
**Doughten Seed Co.**  
Jersey City, N. J.  
**Duryea Seed Co., Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Engbretson Seed Co.**  
Astoria Ore.  
**Fertilawn Co.**  
Hamilton, N. Y.  
(See Adv. on Page 31)  
**Hunkel Co., G. H.**  
Milwaukee, Wis.  
**Hyper-Humus Co.**  
Newton, N. J.  
(See Adv. on Page 123)  
**Johnson, Inc., J. Oliver**  
Chicago, Ill.  
**Kellogg-Kelly Seed Co.**  
St. Joseph, Mo.  
(See Adv. on Page 61)  
**Kellogg Seed Co.**  
Milwaukee, Wis.  
**Klein, G. A.**  
Los Angeles, Calif.  
**Landreth Seed Co., D.**  
Bristol, Pa.  
(See Adv. on Page 3)  
**Leonard Seed Co.**  
Chicago, Ill.  
(See Adv. on Third Cover)  
**Louisville Seed Co.**  
Louisville, Ky.  
(See Adv. on Page 61)  
**Mangelsdorf & Co., F. A.**  
Atchison, Kans.  
**Mangelsdorf & Bro., Ed. F.**  
St. Louis, Mo.  
(See Adv. on Page 13)  
**McCullough Seed Co., The J. Chas.**  
Cincinnati, Ohio  
(See Adv. on Page 65)  
**McCullough's Sons Co., The J. M.**  
Cincinnati, Ohio  
(See Adv. on Page 63)  
**McHutchison & Co.**  
New York, N. Y.  
(See Adv. on Page 161)  
**Mount Arbor Nurseries**  
Shenandoah, Iowa  
**Northwest Seed Co., The**  
Seattle, Wash.  
**O. & M. Seed Co., The**  
Green Springs, Ohio  
(See Adv. on Page 115)  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Radwaner Seed Co., I. L.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Radway-McCullough Seeds, Inc.**  
New York, N. Y.  
(See Adv. on Page 63)  
**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)  
**Scott Co., I. W.**  
Pittsburgh, Pa.  
**Scott & Sons Co., O. M.**  
Marysville, Ohio  
(See Adv. on Page 31)  
**Sevin-Vincent Seed Co.**  
San Francisco, Calif.  
**Sun-Field Seed Service**  
Chicago, Ill.  
**Williamson, Garfield**  
New York City, N. Y.  
(See Adv. on Page 92)

## Woodruff &amp; Sons, F. H.

Milford, Conn.

(See Adv. on Front Cover)

## POP CORN

**American Popcorn Co.**  
Sioux City, Iowa  
**Bagnall, Howard E.**  
Kansas City, Mo.  
**Clark & Sons, C. S.**  
Wakeman, Ohio  
(See Adv. on Page 25)  
**Cornell Seed Co.**  
St. Louis, Mo.  
(See Adv. on Page 25)  
**Craver-Dickinson Seed Co.**  
Buffalo, N. Y.  
(See Adv. on Page 13)  
**Dickinson Co., Albert**  
Chicago, Ill.  
(See Adv. on Page 132)  
**Haddon, J. W.**  
Hickory, Miss.  
**Indiana Pop Corn Co.**  
Muncie, Ind.  
**Mangelsdorf & Co., F. A.**  
Atchison, Kans.  
**Tuttle Popcorn Co., R. M.**  
Spencer, Iowa

## POTATO SEED

**Interstate Seed & Grain Co.**  
 Fargo, N. D.  
(See Adv. on Page 41)  
**SEED POTATOES**  
**Aggeler & Musser Seed Co.**  
Los Angeles, Calif.  
**Barnes Co., O. J.**  
Grand Forks, N. D.  
**Cochrane Co., T. H.**  
Portage, Wis.  
**Davenport Seed Co.**  
Davenport, Iowa  
(See Adv. on Page 39)  
**Farmer Seed & Nursery Co.**  
Faribault, Minn.  
(See Adv. on Page 115)  
**Far North Potato Ass'n**  
Park River, N. D.  
**Hand Seed Co., Inc., A. M.**  
Portland, Ore.  
**Hickox-Rumsey Co.**  
Batavia, N. Y.  
**Hopkins & Co., H. A.**  
Minneapolis, Minn.  
**Hyde Co., H. A.**  
Watsonville, Calif.  
**Interstate Seed & Grain Co.**  
 Fargo, N. D.  
(See Adv. on Page 41)  
**May & Co., Inc., W. H.**  
Alexandria, Va.  
**Miller & Co., Albert**  
Chicago, Ill.  
**Myers & Scott**  
Van Buren, Ark.  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
**Pinner & Co.**  
Suffolk, Va.  
**Portland Seed Co.**  
Portland, Ore.  
**Rohrer & Bro., P. L.**  
Smoketown, Pa.  
**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)  
**Simmons Seed Co.**  
Moorhead, Minn.  
**Sun-Field Seed Service**  
Chicago, Ill.  
**Valker-Christensen Co.**  
Minot, N. Dak.  
**Van Antwerp Seed Co.**  
Mobile, Ala.  
**Washburn-Wilson Seed Co.**  
Moscow, Idaho  
(See Adv. on Page 31)  
**Woodruff & Sons, S. D.**  
Orange, Conn.



## BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued

## SEED CORN

- Aggeler & Musser Seed Co.  
Los Angeles, Calif.
- Associated Seed Growers, Inc.  
New Haven, Conn.  
(See Adv. on Page 99)
- Athens Seed Co.  
Athens, Ga.  
(See Adv. on Page 57)
- Atlantic Seed Co., Inc.  
Philadelphia, Pa.
- Beridon, Jr., E. J.  
Hamburg, La.  
(See Adv. on Page 23)
- Bernhard Seed Co., A.  
Parkston, S. D.
- Bonahoom Seed Co., N.  
Hastings, Nebr.
- Bowman Seed Co., The  
Concordia, Kan.
- Clark & Sons, C. S.  
Wakeman, Ohio  
(See Adv. on Page 25)
- Cochrane Co., T. H.  
Portage, Wis.
- Coe Seed & Grain Co., D. O.  
Topeka, Kan.
- Comstock, Ferre & Co.  
Wethersfield, Conn.  
(See Adv. on Page 91)
- Cornell Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)
- Council Bluffs Seed Co.  
Council Bluffs, Iowa
- Coy & Son, Chauncey P.  
Waterloo, Neb.
- Crabbs, Reynolds, Taylor Co.  
Crawfordsville, Ind.
- Crookham Co.  
Caldwell, Ida.
- Dakota Improved Seed Co.  
Mitchell, S. D.  
(See Adv. on Page 57)
- Dassel Seed Co., Inc.  
Dassel, Minn.
- Davenport Seed Co.  
Davenport, Iowa  
(See Adv. on Page 39)
- Davis Seed Co., E. C.  
St. Peter, Minn.
- Davis, Zack  
Delaware, Ohio
- Dickinson Co., Albert  
Chicago, Ill.  
(See Adv. on Page 132)
- Eagle Mill & Elevator Co. (Seed Corn)  
Higginsville, Mo.
- Farmer Seed & Nursery Co.  
Faribault, Minn.  
(See Adv. on Page 115)
- Gilmore, E. L. C.  
Ashland, Neb.
- Goldberg Seed & Feed Co.  
Fargo, N. D.
- Griswold Seed & Nursery Co.  
Lincoln, Nebr.  
(See Adv. on Page 65)
- Grossman & Son, W.  
Petersburg, Va.
- Healy Seed Co.  
Belle Center, Ohio
- Interstate Seed & Grain Co.  
Fargo, N. D.  
(See Adv. on Page 41)
- Iroquois Seed Service  
Chicago, Ill.  
(See Adv. on Page 115)
- Iroquois Seed Service  
Ridgewood, N. J.  
(See Adv. on Page 115)
- Jacques, Wm. H.  
Prescott, Wis.  
(See Adv. on Page 29)
- Johnson, Inc., J. Oliver  
Chicago, Ill.
- Keller & Sons, Geo.  
Quincy, Ill.
- Kelly Seed Company  
Peoria, Ill.
- Kelly Western Co.  
Salt Lake City, Utah
- King & Sons, H. C.  
Battle Creek, Mich.  
(See Adv. on Page 27)
- Klingensmith Seed Co., E. J.  
New Augusta, Ind.
- Landreth Seed Co., D.  
Bristol, Pa.  
(See Adv. on Page 3)
- Mangelsdorf & Bro., Ed. F.  
St. Louis, Mo.  
(See Adv. on Page 13)
- Minneapolis Seed Co.  
Minneapolis, Minn.  
(See Adv. on Page 61)
- Morris Grain & Seed Co.  
Morris, Ill.
- Newday Seeds, Inc.  
Fargo, N. D.  
(See Adv. on Page 25)
- Nishna Valley Seed Co.  
Shenandoah, Iowa
- Northrup, King & Co.  
Minneapolis, Minn.  
(See Adv. on Page 5)
- O. & M. Seed Co.  
Green Springs, Ohio  
(See Adv. on Page 115)
- Page Seed Co.  
Greene, N. Y.  
(See Adv. on Page 57)
- Pedrick & Sons, Geo. R.  
Pedricktown, N. J.
- Peppard Seed Co.  
Kansas City, Mo.
- Rice Seed Co., Jerome B.  
Cambridge, N. Y.  
(See Adv. on Page 45)
- Robinson Seed Co., J. C.  
Waterloo, Neb.  
(See Adv. on Page 99)
- Rogers Bros. Seed Co.  
Chicago, Ill.  
(See Adv. on Rear Cover)
- Russell-Heckle Seed Co.  
Memphis, Tenn.
- Searlett & Co., Wm. G.  
Baltimore, Md.  
(See Adv. on Page 40)
- Schell, Inc., Walter S.  
Harrisburg, Pa.
- Simmons Seed Co.  
Moorhead, Minn.
- Sioux City Seed Co.  
Sioux City, Iowa  
(See Adv. on Pages 73 and 95)
- Skromme Seed Co.  
Roland, Iowa
- Springfield Seed Co.  
Springfield, Mo.
- Standard Seed Co.  
Des Moines, Iowa
- Steele, Briggs Seed Co., Ltd.  
Toronto, Canada  
(See Adv. on Page 35)
- Sun-Field Seed Service  
Chicago, Ill.
- Vance Bros.  
Tillsonburg, Ontario, Canada
- Vermillion Seed Co.  
Vermillion, S. D.
- Western Seed & Irrigation Co.  
Fremont, Neb.
- Wood & Sons, T. W.  
Richmond, Va.
- Woodruff & Sons, F. H.  
Milford, Conn.  
(See Adv. on Front Cover)
- Woodruff & Sons, S. D.  
Orange, Conn.
- Zangger, W. O. (Sweet Corn)  
North Loup, Nebr.

## TOBACCO SEED

- Snapp & Sons, J. P.  
Limestone, Tenn.  
(See Adv. on Page 93)



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No better quality anywhere.  
Our strains suitable for the most critical trade. Grown where Stewart's disease is unknown.

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GARDEN SEED  
GRASS SEED  
SWEET CORN  
FIELD CORN  
SEED OATS

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GREEN SPRINGS OHIO.

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WRITE FOR PRICES

Manufacturers

**WALTER E. CLARK & SON**  
Milford, Conn.



**BULBS, PLANTS AND MISCELLANEOUS SEEDS—Continued****TREE SEEDS**

- Aggeler & Musser Seed Co.  
Los Angeles, Calif.
- Albany Seed Co.  
Albany, Ore.  
(See Adv. on Page 41)
- Ansaloni, Arturo  
Bologna, Italy
- Colorado Seed Co.  
Denver, Colo.
- Ellis, F. M.  
Griffin, Ga.
- Grunwald, A.  
Wiener-Neustadt, Austria
- Herbst Brothers  
(Agts. for T. Sakata & Co., Yokohama, Japan)  
New York City  
(See Adv. on Pages 73 and 131)
- Katzenstein & Co., Otto  
Atlanta, Ga.
- Loewith, Inc., Julius  
New York City, N. Y.  
(See Adv. on Page 63)
- Manshu Nosan Shokai, Inc.  
Dairen, So. Manchuria, China
- Mitchell Bros. Nursery  
Forest Hill, La.
- Murphy, A.  
Woy Woy, N. S. W., Australia
- North Eastern Forestry Co.  
Cheshire, Conn.
- Rosebank Nursery Co.  
Huntsville, Ala.
- Schon, Ltd., Jacob S.  
Bruenn, Czechoslovakia
- Tokyo Konoen, Ltd.  
Shibuya, Tokyo, Japan
- Yokohama Nursery Co., Ltd.,  
New York, N. Y.

**VEGETABLE ROOTS**

- Cornell Seed Co.  
St. Louis, Mo.  
(See Adv. on Page 25)
- Hyde Co., H. A.  
Watsonville, Calif.
- Lagomarsino & Sons, F.  
Sacramento, Calif.  
(See Adv. on Page 34)
- Ledden, Orol  
Sewell, N. J.
- Pedrick & Sons, Geo. R.  
Pedricktown, N. J.

**WILD RICE**

- Fleming, Ernest  
Bena, Minn.
- MacGregor-Dennerly Co.  
Aitkin, Minn.
- Minnesota Wild Rice Co.  
La Porte, Minn.
- Terrell's Aquatic Farm  
Oshkosh, Wis.

**BROKERS**

- Appel Commission Co., C. H.  
St. Louis, Mo.
- Crawford, Keen & Co.  
New York, N. Y.
- Dreyfus, Paul  
Paris, France
- Dunn, Arthur G.  
New York City, N. Y.
- Gauvreau, Paul F.  
Quebec City, Canada
- German, Gale T.  
New York, N. Y.
- Herbst Bros.  
New York, N. Y.  
(See Adv. on Pages 73 and 131)
- Lecourt, Rene  
Paris, France
- Lochner & Co., Inc.  
New York, N. Y.  
(See Adv. on Page 83)

- Loewith, Inc., Julius  
New York City, N. Y.  
(See Adv. on Page 63)
- McCarty Co., The J. A.  
Evansville, Ind.
- McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)
- Mason, R. E.  
San Francisco, Calif.
- Meier, J. G.  
Salina, Kans.  
(See Adv. on Page 111)
- Muller & Slaughter  
Laredo, Tex.
- Pincus, J. W.  
New York, N. Y.
- Radwaner Seed Co., I. L.  
New York, N. Y.  
(See Adv. on Page 63)
- Scott, T. Maurice  
St. Louis, Mo.  
(See Adv. on Page 61)
- Southern Brokerage Co. (Seeds, Fertilizers, Onion Sets)  
Memphis, Tenn.
- Sperco & Son, C. J.  
New York, N. Y.

**FORWARDING AGENTS**

- Furness, Withy & Co., Ltd.  
New York City, N. Y.
- McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)
- Meadows & Co., Thos.  
New York City, N. Y.
- Pitt & Scott  
New York, N. Y.
- Ravaud, A.  
Paris, France

**SEED COMMISSION FIRMS**

- American Seed Co.  
Detroit, Mich.
- Appel Commission Co., C. H.  
St. Louis, Mo.
- Flower Co., S. W.  
Toledo, Ohio
- Loewith, Inc., Julius  
New York City, N. Y.  
(See Adv. on Page 63)
- Picker & Beardsley Comm. Co.  
St. Louis, Mo.
- Pitt & Scott, Inc.  
New York City, N. Y.
- Radwaner Seed Co., I. L.  
New York City, N. Y.  
(See Adv. on Page 63)
- Scott, T. Maurice  
St. Louis, Mo.  
(See Adv. on Page 61)
- Sevin-Vincent Seed Co.  
San Francisco, Calif.
- Southworth & Co.  
Toledo, Ohio

**SEED STORAGE AND DISTRIBUTION**

- Blue Line Storage Co.  
Des Moines, Iowa
- Crooks Terminal Warehouse  
Chicago, Ill.
- Currier-Lee Warehouse Co.  
Chicago, Ill.
- Binyon-O'Keefe Fireproof Storage Co.  
Ft. Worth, Texas
- Bush Terminal Co.  
New York City, N. Y.
- General Storage Co.  
Cleveland, Ohio
- Sevin-Vincent Seed Co.  
San Francisco, Calif.



APPROXIMATE QUANTITY TO SOW PER ACRE

Kind of Seed	Per Acre		
Alfalfa .....	15 to 20 pounds	Emmer or Speltz.... 80 to 100 pounds	
Barley .....	100 to 120 pounds	Flax .....	30 to 35 pounds
Beans—Soy .....	30 to 35 pounds	Hemp .....	40 to 50 pounds
Beans—Table Bush.	45 to 50 pounds	Millet .....	35 to 45 lbs., broadcast
Beans—Velvet .....	50 to 65 pounds		10 to 15 lbs.—drilled
Beets—Sugar .....	5 to 6 pounds	Oats .....	100 pounds
Buckwheat .....	75 pounds, broadcast	Peanuts .....	30 to 35 pounds
	20 to 30 lbs., drilled	Peas, Canada .....	75 to 80 pounds
Clover, Alsike .....	10 to 12 pounds	Peas, Garden .....	60 to 120 pounds
Clover, Burr .....	15 to 20 pounds	Potatoes, Irish .....	850 to 1,000 pounds
Clover, Crimson ....	12 to 20 pounds	Potatoes, Sweet....	Approx. 10,000 plants
Clover, Red .....	12 to 15 pounds	Rape, Dwarf Essex..	12 to 15 lbs. broadcast
Clover, Mammoth...	12 to 15 pounds		4 to 8 lbs., drilled
Clover, Sweet .....	10 to 15 pounds	Rye .....	70 to 80 pounds.
Clover, White .....	8 to 10 pounds	Sorghum .....	30 to 35 pounds.
Corn, Field .....	10 to 15 pounds	Sunflower .....	4 to 6 lbs. (drilled)
Corn, Sweet .....	10 to 15 pounds	Vetch, Common ....	60 to 75 pounds
Cotton .....	20 to 30 lbs., drilled	Vetch, Hairy .....	25 to 30 pounds
		Wheat .....	100 to 120 pounds

QUANTITIES OF VEGETABLE SEED TO SOW A ROW

Kind of Seed	Quantity to Sow a Single Row of 100 Yards
Asparagus .....	8 oz.
Beans, Bush.....	6 lb.
Beans, Lima.....	3 lb.
Beans, Pole.....	3 lb.
Beet .....	5 oz.
Broccoli .....	3 oz.
Brussels Sprouts.....	3 oz.
Cabbage .....	2 oz.
Carrot .....	3 oz.
Cauliflower .....	3 oz.
Celery .....	3 oz.
Collards .....	3 oz.
Corn .....	1 lb.
Cress .....	4 oz.
Cucumber .....	4 oz.
Dandelion .....	3 oz.
Egg Plant.....	1 oz.
Endive .....	2 oz.
Kohl-rabi .....	3 oz.
Leek .....	3 oz.
Lettuce .....	2 oz.
Melon, Musk.....	2 oz.
Melon, Water.....	2 oz.
Mustard .....	4 oz.
Okra .....	3 oz.
Onion (for large bulbs).....	2 oz.
Onion (for sets).....	8 oz.
Parsley .....	2 oz.
Parsnip .....	2 oz.
Peas .....	6 lb.
Pepper .....	1 oz.
Pumpkin .....	2 oz.
Radish .....	6 oz.
Rhubarb .....	3 oz.
Salsify .....	3 oz.
Spinach .....	6 oz.
Squash .....	3 oz.
Tomato .....	1 oz.
Turnip .....	3 oz.

The quantity of vegetable seed required to produce a given number of plants:

Variety	Oz.	Approx. No. of Plants
Artichoke .....	1	500
Asparagus (Seed) .....	1	800
Beans, Bush .....	1	150
Beans, Pole .....	1	125
Beets .....	1	1,800
Broccoli .....	1	2,000
Brussel's Sprouts .....	1	2,000
Cabbage .....	1	2,000
Carrots .....	1	3,000
Cauliflower .....	1	2,000
Celery .....	1	5,000
Chervil .....	1	1,500
Chicory .....	1	1,400
Collards .....	1	4,000
Corn .....	1	175
Corn Salad .....	1	1,600
Cucumber .....	1	1,000
Egg Plant .....	1	2,000
Endive .....	1	1,250
Kale .....	1	3,000
Kohl Rabi .....	1	3,000
Leek .....	1	1,600
Lettuce .....	1	8,000
Muskmelon .....	1	1,600
Mustard .....	1	2,500
Okra .....	1	600
Onion .....	1	1,250
Parsley .....	1	1,400
Parsnip .....	1	750
Peas .....	1	125
Pepper .....	1	1,500
Pumpkin .....	1	125
Radish .....	1	1,000
Rhubarb .....	1	700
Salsify .....	1	500
Spinach .....	1	1,100
Squash .....	1	500
Tomato .....	1	2,000
Turnip .....	1	4,000
Watermelon .....	1	500



⌘
IT PAYS TO SPRAY
⌘

DAMAGE DONE by insects and fungus diseases amounts to many millions of dollars annually. In order to combat them, manufacturers of insecticides and fungicides have scientifically prepared many sprays and dusts which have been found effective in the control and eradication of these pests and diseases.

These products are sold by the manufacturers under various trade names. Retail seedsmen have found it most profitable to have them for sale. Each year the demand for insecticides and fungicides is increasing.

In order to make it easier for the users of this GUIDE to ascertain what insecticide or fungicide to use for the numerous pests that infest growing crops, the following table has been arranged giving the names of some of the products which have been found effective.

Acme White Lead & Color Works, Detroit, Mich.	"G & O Dormant Miscible Oil Spray"	McLaughlin Gormley King Co., Minneapolis, Minn.
"Acme All Round Spray"	"G & O Nicotine Dust"	"Ever Green"
"Acme Aphis Spray"	"G & O Plant Spray"	"Selocide"
"Acme Arsenate of Lead"	"G & O 142"	Mechling Bros. Chemical Co., Camden, N. J.
"Acme Bean Beetle Dust"	"G & O 180"	"Hydroxide"
"Acme Bordeaux Mixture"	"GO-4"	"Mechling's Scale Oil"
"Acme Calcium Arsenate"	Grasselli Chemical Co., Cleveland, Ohio	"Pyrote"
"Acme Dry Lime Sulphur"	"Dutox"	S. B. Penick & Co., New York, N. Y.
"Acme Garden Guard"	"Floragard"	"Deridust"
"Acme London Purple"	"Grasselli Arsenate of Lead"	"Derispray"
"Acme Paris Green"	"Kleenup Oil"	"Foliafume"
"Acme Spray Soap"	"Loro"	Morris B. Reade, Inc., Belleville, N. J.
Chipman Chemical Company, Bound Brook, N. J.	"Manganar Rose Dust"	"Agri-Pax"
"Calgreen"	"Nu Rexform"	Rohm & Haas Co., Philadelphia, Pa.
"Cubor"	"Sulforon"	"Cuprocide"
"Cubor Dust"	Hammond Paint & Chemical Co., Beacon, N. Y.	"Lethane 420"
General Chemical Co., New York, N. Y.	"Do-All Green Dust"	Tobacco By-Products & Chemical Corporation, Louisville, Ky.
"O. B. Arsenate of Lead"	"Grape & Rose Dust"	"Blackleaf 40"
"O. B. Bordeaux Dust"	"Nicotine Soap"	"Nicofume Liquid"
"O. B. Calcium Arsenate"	"Slug Shot"	Andrew Wilson, Inc., Springfield, N. J.
"O. B. Dritomic Sulphur"	"Thrip Juice"	"Awine"
"O. B. Lime Sulphur"	Hitox Products Corp., New York, N. Y.	"Fung-O"
"O. B. Nicotine Sulphate"	"Hitox"	"O. K. Plant Spray"
"O. B. X-13"	The Kalo Company, Quincy, Ill.	"Scale-O"
James Good, Inc., Philadelphia, Pa.	"Kalo"	"Tri-Tox-Cide"
"Keystone Fish Oil Spray Soaps No. 1, 2 and 3"	"Kalo Spray"	
Goulard & Olena, Inc., New York, N. Y.	"Kaloil"	
"G & O Bordeaux Mixture"	"Kalite"	
"G & O Copper Lime Dust"	"Killal"	
	McCormick & Co., Baltimore, Md.	
	"Red Arrow"	

Spraying Table

	Disease or Insect	What to Use
Apple and Pear	Codling Moth	Acme Arsenate of Lead; Agri-Pax; Dutox; GO-4; Grasselli Arsenate of Lead; Kalo; Nu Rexform; Slug Shot
	San Jose Scale	Acme Dry Lime Sulphur; G & O Dormant Miscible Oil; Keystone Fish Oil Soap No. 1; Kleenup Oil; Lethane 420; Mechling's Scale Oil; O. B. Lime Sulphur; Scale-O.
	Scab	Acme Dry Lime Sulphur; Cuprocide; G & O Dormant Mis. Oil; Kaloil.
	Wooly Aphis	Acme Aphis Spray; Acme Dry Lime Sulphur; Acme Spray Soap; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Foliafume; G & O Plant Spray; Hitox; Kalo; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Thrip Juice.
Asparagus	Asparagus Beetle	Acme Garden Guard; Acme London Purple; Acme Paris Green; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; GO-4; Hitox; Kalite; Killal; O. B. Arsenate of Lead; Pyrote; Red Arrow.
Aster	Aphis	Acme Aphis Spray; Acme All Round Spray; Agri-Pax; Awine; Black Leaf 40; Do-All Green Dust; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
	Aster Beetle	Acme All Round Spray; Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Dutox; Ever Green; Foliafume; GO-4; Hitox; Kalite; Killal; O. B. Arsenate of Lead; Pyrote; Red Arrow; Slug Shot.
Beans	Aphis	Acme Aphis Spray; Acme Spray Soap; Agri-Pax; Awine; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; GO-4; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Red Arrow; Thrip Juice.
	Mexican Bean Beetle	Acme Bean Beetle Dust; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; Ever Green; G & O 1 & 2; Hitox; Kalite; Killal; O. B. Bordeaux Dust; Pyrote; Red Arrow; Slug Shot.



# HUDSON

## SPRAYERS—GARDEN TOOLS

## POULTRY SUPPLIES

*are sold the world over!*

They are improved and developed to the highest standard of quality. Those who sell the three HUDSON LINES are assured of getting up-to-the-minute merchandise, tested and retested under practical conditions.

The completeness of these three lines reduces your buying problem to a single source of supply and your immediate request for information and special seed dealer proposition will prove of great value to you.

**H. D. HUDSON MANUFACTURING CO.**

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CHICAGO, ILL.

NEW YORK CITY  
OMAHA

MINNEAPOLIS  
KANSAS CITY

PHILADELPHIA  
SAN FRANCISCO

## INCREASE YOUR SALES WITH PETS & SUPPLIES



LET SEED WORLD PUT YOU  
IN TOUCH WITH THE PROPER  
ONES TO SUPPLY YOU WITH  
QUALITY ITEMS THAT SELL.

FOR THIS SERVICE  
JUST WRITE TO THE

**PET DEPARTMENT  
SEED WORLD**

325 W. Huron St., » Chicago



Spraying Table (Continued)

	Disease or Insect	What to Use
Cabbage Cauliflower Brussels Sprouts	Cabbage Worm	Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Cubor Dust; Deridust; Derispray; Dutox; Ever Green; GO-4; G & O Copper Lime Dust; Hitox; Kalo Spray; Killal; O. B. Calcium Arsenate; Pyrote; Slug Shot.
	Thrips	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
Carnation	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
	Rot	Acme Dry Lime Sulphur; G & O Dormant Misc. Oil; O. B. Dritomic Sulphate; Sulforon.
Cherry	Curculio	Acme Arsenate of Lead; GO-4; Kalo Spray; O. B. Arsenate of Lead.
	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.
Chrysanthemum	Thrips	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Cubor Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Nicofume Liquid; O. B. X-13; Red Arrow; Thrip Juice.
	Striped Beetle	Acme Garden Guard; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; Ever Green; GO-4; Hitox; Kalite; Killal; O. B. Bordeaux Dust; Pyrote; Red Arrow; Slug Shot.
Cucumber	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; GO-4; Hitox; Kaloil; Killal; Lethane 420; Loro; O. B. Nicotine Sulphate; Pyrote; Red Arrow; Thrip Juice.
	San Jose Scale	Acme Dry Lime Sulphur; G & O Dormant Misc. Oil; Keystone Fish Oil Soap No. 1; Lethane 420; O. B. Lime Sulphur Solution; Scale-O.
Currant	Worm	Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Cubor; Deridust; Ever Green; GO-4; Hitox; Kalite; Killal; O. K. Plant Spray; Pyrote; Slug Shot.
	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; GO-4; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
Dahlia	Tarnished Plant Bug	Agri-Pax; Awine; Cubor; Ever Green; Foliafume; GO-4; Kaloil; Killal; O. B. X-13; Red Arrow; Slug Shot.
	Thrips	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Awine; Black Leaf 40; Cubor; Cubor Dust; Ever Green; Foliafume; Hitox; G & O Plant Spray; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; O. B. X-13; Red Arrow; Thrip Juice.
	Mealy Bug	Lethane 420.
	White Fly	Agri-Pax; Awine; Cubor; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Lethane 420; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
Ferns	Aphis	Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; Hitox; G & O Plant Spray; Kalcil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.
	Mildew	Acme Aphis Spray; Acme Bordeaux Mixture; Foliafume; Fung-O; G & O Bordeaux Mixture; Grape Rose Dust.
Gooseberry	Worm	Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Ever Green; Foliafume; GO-4; Hitox; Kalite; Killal; Pyrote; Slug Shot.
	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.
Plum	Rot	Acme Dry Lime Sulphur; O. B. Dritomic Sulphur; Sulforon.
	Curculio	Acme Arsenate of Lead; O. B. Arsenate of Lead.
	Early Blight	Acme Bordeaux Mixture; G & O Bordeaux Mixture; Hydroxide.
	Late Blight	Acme Bordeaux Mixture; G & O Bordeaux Mixture; Hydroxide.
Potato	Potato Bugs	Acme Calcium Arsenate; Acme London Purple; Acme Paris Green; Agri-Pax; Calgreen; Deridust; Derispray; Dutox; G & O 180; Hitox; Hydroxide; Kalite; Kalospray; O. B. Calcium Arsenate; Pyrote; Slug Shot.
	Red Spider	Agri-Pax; Awine; Cubor; Floragard; Foliafume; G & O Plant Spray; Hitox; Kaloil; Killal; Lethane 420; Manganar Rose Dust; O. B. Dritomic Sulphur; Pyrote; Red Arrow; Selocide; Thrip Juice.
Roses	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Rose Dust; Thrip Juice.
	Leaf Roller	Agri-Pax; Awine; Cubor; Foliafume; GO-4; Hitox; Kalospray; Kleenup Oil; Red Arrow; Thrip Juice.
	Beetles	Acme All Round Spray; Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Cubor; Dutox; Foliafume; GO-4; Kalospray; Killal; O. B. Arsenate of Lead; Pyrote; Slug Shot.



## Spraying Table (Continued)

	Disease or Insect	What to Use
Sweet Pea	Aphis	Acme All Round Spray; Acme Aphis Spray; Agri-Pax; Black Leaf 40; Cubor; Do-All Green Dust; Ever Green; Foliafume; G & O Plant Spray; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Lethane 420; Loro; Nicofume Liquid; O. B. X-13; O. K. Plant Spray; Pyrote; Red Arrow; Thrip Juice.
Tomato	Anthracnose	Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture; Killal; Thrip Juice.
	Leaf Spot	Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture.
	Tomato Worm	Kalospray; Killal.
Watermelon and Muskmelon	Anthracnose	Acme Bordeaux Mixture; Fung-O; G & O Bordeaux Mixture; Thrip Juice.
	Aphis	Acme Aphis Spray; Acme Garden Guard; Agri-Pax; Awine; Black Leaf 40; Cubor; Deridust; Derispray; Do-All Green Dust; Ever Green; G & O Nicotine Dust; Hitox; Kaloil; Keystone Fish Oil Soap No. 1; Killal; Loro; O. B. X-13; Pyrote; Red Arrow; Thrip Juice.
	Beetles	Acme Garden Guard; Agri-Pax; Awine; Cubor; Deridust; Derispray; Dutox; Ever Green; G & O 180 G & O Copper Lime Dust; Hitox; Kalite; Kalospray; Killal; O. B. Bordeaux Dust; Pyrote; Slug Shot.

**MECHLING'S**

## Insecticide Specialties

**PYROTE**

Reg. U. S. Pat. Off.

**outstanding non-poisonous  
Pyrethrum-Rotenone Spray.  
Powerful**

*Here are a few more of our specialties  
which you can sell profitably:*

Bacterial Sulphur (we are sole manufacturers.)

Hydroxide, combined Bordeaux-Arsenical.

Mexican Bean Beetle Destroyer.

Rotenone-Sulphur Dusting Mixture.

Scale Oil for Fruits and Ornamental Trees.

Japtox—the new control for Japanese Beetles.

*We invite inquiries, which will have careful attention.*

**MECHLING'S****BROS. CHEMICAL CO.****CAMDEN, N.J.**

Est. 1869

**HIGH POWERED  
AND SAFE**

**WE** combine more Pyrethrum and Derris extracts—with a "no-burn" spreader—to better control

RED SPIDER, MEALY BUG,  
THRIPS, HOPPERS, MIDGE,  
APHIS, and other insects.

Non-poisonous

*Through your dealer \$12.00 a gallon*

**S. B. PENICK & COMPANY**

132 Nassau St.

NEW YORK

**Foliafume**  
**PLANT SPRAY**

**USE THIS GUIDE!**

To locate sources of seed supplies (page 56).

To locate sources of merchandise supplies (page 122).

For information on seed prices (pages 26, 28, 30, 32, 35 and 92).

For tariff information (page 38).

For information on seed verification service (page 42).

For foreign seed import information (pages 36 and 37).

For trade marks and slogans (pages 50, 51, 52, 53 and 54).

For latest spraying information (pages 118, 120 and 121).

For other seed and plant information.



## SIDE LINE MERCHANDISE FERTILIZERS AND SPREADERS

### FERTILIZERS

Adco Co.  
Carlisle, Pa.  
American Agricultural Chem. Co.  
New York, N. Y.  
American Bulb Co.  
Chicago, Ill.  
(See Adv. on Page 111)  
American Limestone Co.  
Knoxville, Tenn.  
Armour Fertilizer Wks.  
Atlanta, Ga.  
Atkins & Durbrow  
New York, N. Y.  
(See Adv. on Page 129)  
Atlanta Chemical Co.  
Atlanta, Ga.  
Balfour, Guthrie & Co.  
San Francisco, Cal.  
Barrett Co., The  
New York City, N. Y.  
Baugh & Sons Co.  
Baltimore, Md.  
Bon Arbor Chemical Co.  
Paterson, N. J.  
Bramley & Son  
Cleveland, Ohio  
Carus Chemical Co.  
La Salle, Ill.  
Consumers Import Co.  
New York, N. Y.  
Darling & Co.  
Chicago, Ill.  
Federal Chemical Co.  
Columbia, Tenn.  
Fertilawn Co.  
Hamilton, N. Y.  
(See Adv. on Page 31)  
Flower City Plant Food Co., Inc.  
Pittsford, N. Y.  
Fujiya Fertilizer & Seed Co.  
Moneta, Calif.  
Garden Supplies (1929), Ltd.  
Liverpool, England  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Grasselli Chemical Co., The  
Cleveland, Ohio  
(See Adv. on Second Cover)  
Heil Company  
Milwaukee, Wis.  
Hyper-Humus Co.  
Philadelphia, Pa.  
(See Adv. on Page 123)  
International Agricultural Corp.  
New York, N. Y.  
Natural Guano Co.  
Aurora, Ill.  
(See Adv. below)  
Ober & Sons Co., G.  
Baltimore, Md.  
Pacific Manure & Fertilizer Co.  
San Francisco, Calif.  
Plantabbs Corp.  
Baltimore, Md.  
Premier Poultry Manure Co.  
Chicago, Ill.

Pulverized Manure Co.  
Chicago, Ill.  
(See Adv. on Page 123)  
Royster Guano Co., F. S.  
Norfolk, Va.  
Ruhm Phosphate & Chemical Co.  
Mt. Pleasant, Tenn.  
Sewerage Commission  
Milwaukee, Wis.  
Smith Agricultural Chemical Co.  
Columbus, Ohio  
(See Adv. on Page 123)  
Stadler Products Co.  
Cleveland, Ohio  
Stimuplant Laboratories, Inc.  
Long Island City, N. Y.  
(See Adv. on Page 135)  
Swift & Co.  
Chicago, Ill.  
Synthetic Nitrogen Products Corp.  
New York City, N. Y.  
Tennessee Corp.  
New York, N. Y.  
Virginia-Carolina Chemical Corp.  
Richmond, Va.  
Williamson, Inc., Garfield  
New York, N. Y.  
(See Adv. on Page 92)  
Wilson, Inc., Andrew  
Springfield, N. J.  
(See Adv. on Page 145)  
Wilson & Co.  
Chicago, Ill.  
York Chemical Works  
York, Pa.

### FERTILIZER PLACERS

Stauffer Machine Works  
Honey Brook, Pa.

### FERTILIZER SPRAYERS

Alliance Mfg. Co.  
Alliance, Ohio  
Electric Sprayit Co.  
South Bend, Ind.  
Gatchet, Inc., F. L.  
Seattle, Wash.  
Vex Sales Corp.  
Chicago, Ill.

### FERTILIZER SPREADERS

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Baier Bros. Mfg. Co.  
Cissna Park, Ill.  
Campbell-Hausfeld Co., The  
Harrison, Ohio  
(See Adv. on Page 147)  
Cyclone Seeder Co., The  
Urbana, Ind.  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Emerson-Brantingham Implement Co.  
Rockford, Ill.  
Hoeft & Co.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hyper-Humus Co.  
Philadelphia, Pa.  
(See Adv. on Page 123)

THE

2

## LEADING PLANT FOODS

### Sheep's Head Pulverized Sheep Manure

A concentrated organic plant food, sterilized of weed seeds, for use where quick, active results are desired. Packed 5 lbs., 10, 25, 50, 100 pounds to the bag.



### Sheep's Head Sterilized Cattle Manure

For plants requiring a loose, cool soil reclaimant; especially desirable for flowers, such as roses, dahlias, tulips, house plants. Sterilized of weed seeds. Organic. Odorless. Packed 100 pounds to the bag.

These two products are all the plant foods you need to build yourself a thriving seed business—in store or catalog. Send us your requirements and we will furnish copy, layout and cuts for catalog or newspaper use. Ask for our dealer proposition.

**THE NATURAL GUANO COMPANY**  
816 River Street      Established 1903      Aurora, Illinois





## Nature's Soil Builder

### Improves Your Customer's Soil

Dealers everywhere agree that HYPER-HUMUS is a profitable item. Write for our proposition to dealers.

We will be glad to send you a sample of HYPER-HUMUS and a complete set of bulletins for its use . . . and tell you how you can make it one of the most profitable items in your store sales.

The information and bulletins involve no obligation.

Address the:

### HYPER-HUMUS COMPANY

Morris Building  
Philadelphia Pennsylvania

## SACCO



The popular general purpose fertilizer; for lawns, flowers, vegetables, shrubs and trees. Contains a complete plant food diet. Easy to stock, easy to sell, easy to use. The choice of thousands of professional and amateur growers. Convenient packages, 1 lb. to 100 lbs. Liberal discount.

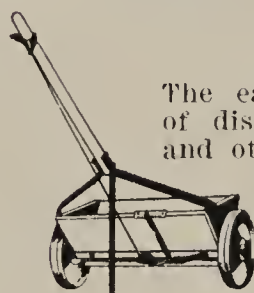


## WEDO

A special fertilizer for lawns only. Feeds grass; fights weeds. Simple to apply, economical to use. Highly recommended by those in charge of parks, golf greens and fine lawns everywhere.

A consistent repeat seller. Convenient packages, 10 lbs. to 100 lbs. Liberal trade discount.

### SACCO Fertilizer and Seed SPREADERS



The easiest and most satisfactory way of distributing grass seed, plant foods and other similar materials. Well made and easy to operate. Adjustable feed for controlling rate of application. Two sizes, 18" and 30". List prices, \$3.50 and \$14.50.

Write today for descriptions and prices.

The Smith Agricultural Chemical Company  
620 North Champion Ave. Columbus, Ohio



## Sell Natural Plant Foods

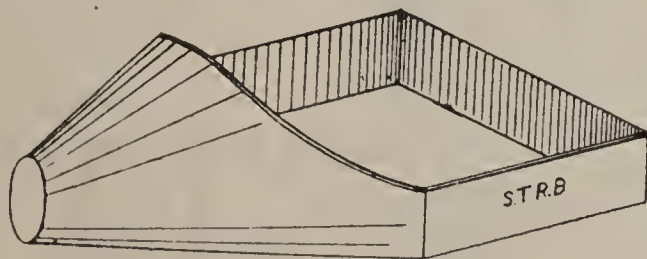
Wizard Manures are pure, highly concentrated and absolutely weedless. Attractively packed in paper lined bags in many sizes. These quality products have served the trade for 27 years. A free sales service brings in orders and makes Wizard easy to sell.

Write for Prices

The Pulverized Manure Co.,

EXCHANGE BLDG.  
UNION STOCK YARDS  
CHICAGO, ILLINOIS

## WIZARD SHEEP AND COW MANURES



### SEED AND GRAIN SAMPLE PANS

For containing grain or seed after sampling. Advantageous in making analyses and for display. Seamless.

Wellsville steel—dark blue and non-glaring.

No. 31—12x16x2 in.—3 qts. wheat capacity. Price each, \$1.50; half dozen, \$8.50.

No. 32—8½x12x1½ in.—1½ qts. wheat capacity. Price each, \$1.25; half dozen, \$7.00.

No. 33—Same as No. 32, Aluminum, \$1.50.

### SEED TRADE REPORTING BUREAU

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CHICAGO, ILL.



**FERTILIZERS AND SPREADERS—Concluded****Fertilizer Spreaders—Continued**

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Root Mfg. Co.  
Cleveland, Ohio  
Salem Tool Co.  
Salem, Ohio  
(See Adv. on Page 125)  
Schuh Bros. Co.  
Indianapolis, Ind.  
Smith Agri. Chem. Co.  
Columbus, Ohio  
(See Adv. on Page 123)  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
(See Adv. on Page 139)

Wilson, Inc., Andrew  
Springfield, N. J.  
(See Adv. on Page 145)

**HUMUS**

Florida Humus Co.  
Zellwood, Fla.  
Hyper-Humus Co.  
Philadelphia, Pa.  
(See Adv. on Page 123)  
Natural Humus Co.  
Philadelphia, Pa.  
Wilson, Inc., Andrew  
Springfield, N. J.  
(See Adv. on Page 145)

**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES****CELERY BLEACHERS**

Ball-Biddle Co.  
Riverton, N. J.  
Disbrow Mfg. Co.  
Newark, N. J.  
(See Adv. on Page 174)

**CULTIVATORS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bacon Mfg. Co.  
Pontiac, Mich.  
Brinly Hardy Co.  
Louisville, Ky.  
Brown Mfg. Co.  
Zanesville, Ohio  
Buffum Tool Co.  
Louisiana, Mo.  
Case Co., J. I.  
Racine, Wis.  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Emerson-Brantingham Implement Co.  
Rockford, Ill.  
Empire Plow Co.  
Cleveland, Ohio  
Gardex, Inc.  
Michigan City, Ind.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Gravely Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Hayes Pump & Planter Co.  
Galva, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
Norcross & Sons, C. S.  
Bushnell, Ill.  
Ohio Cultivator Co.  
Bellevue, Ohio  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.  
Progressive Machinery Co.  
Minneapolis, Minn.  
Schaible Mfg. Co.  
Elyria, Ohio  
Scott Co., I. W.  
Pittsburgh, Pa.  
Utilitor Co., The  
Dayton, Ohio  
Wonder Mfg. Co.  
Fort Worth, Texas

**DIBBLES**

Johnson, Inc., Wm.  
Newark, N. J.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**DRILLS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bacon Mfg. Co.  
Pontiac, Mich.  
Benthall Machine Co.  
Suffolk, Va.  
Brinly Hardy Co.  
Louisville, Ky.  
Crown Mfg. Co.  
Phelps, N. Y.  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Hayes Pump & Planter Co.  
Galva, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
Progressive Machinery Co.  
Minneapolis, Minn.

**FANNING MILLS**

Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Owens Co., J. L.  
Minneapolis, Minn.  
Sidney Grain Machinery Co.  
Sidney, Ohio

**GARDEN LINE REELS**

Johnson, Inc., Wm.  
Newark, N. J.

**GARDEN STICKS**

Root Co., A. I.  
Medina, Ohio  
(See Adv. on Page 161)

**GARDEN TRACTORS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Gilson-Bolens Mfg. Co.  
Port Washington, Wis.  
Gravely Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
Leroy Plow Co.  
Leroy, N. Y.  
Monta Mower Sales Co.  
Grand Rapids, Mich.



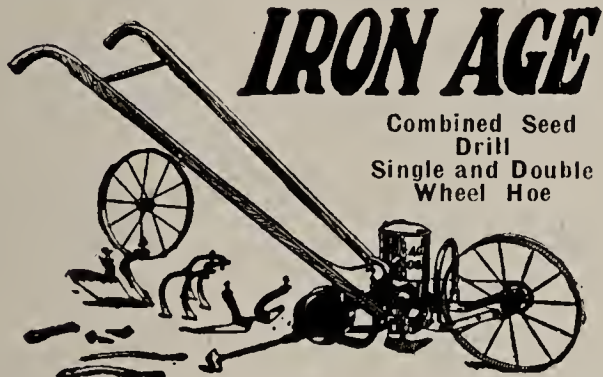
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Dependable  
IRON AGE  
Garden Tools**

Used by Home and  
Truck Gardeners  
for Two Generations

Also True-Fitting Parts for all Iron Age  
Garden Tools now in use.

*Write for prices and discounts*

**ELLIS KEYSTONE  
AGRICULTURAL WORKS  
POTTSTOWN, PENNSYLVANIA**



**IRON AGE**

Combined Seed  
Drill  
Single and Double  
Wheel Hoe

**THE HOFFMAN JR.  
PLANT FOOD DISTRIBUTOR**

A PROFITABLE  
COUNTER &  
CATALOG ITEM



All steel construction—can be used for Fertilizing, Distributing, Broadcasting and Spreading. Is made in 24"—36"—48" widths—60 lbs. to 120 lbs. in weight and from 100 lb. to 200 lb. capacity and is designed for hard continuous service on lawns and gardens of large estates, suburban properties, golf courses, country club grounds, parks, cemeteries, schools, etc.

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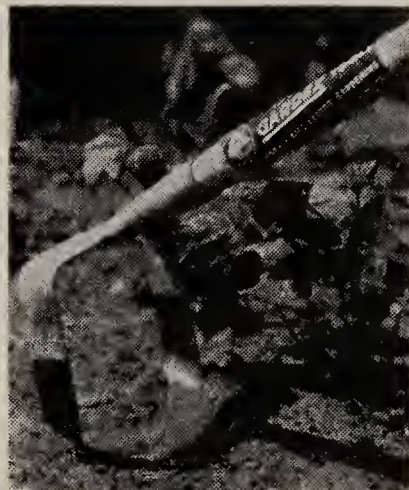
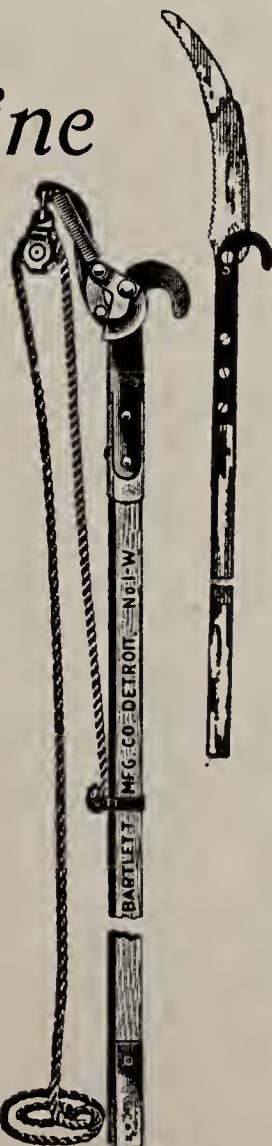
**SALEM TOOL COMPANY**  
SALEM OHIO

**FOR GREATER SATISFACTION  
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Most seed houses know the value of a good line of Pruning Tools and those who have stocked the BARTLETT No. 1 Compound Lever Tree Trimmer, Jointed Pole, or one-piece pole, and No. 777 Two Hand Pruner need no further inducements. They are sold. If you have never seen these splendid tools let us fill your sample order, at least send for catalog. Our tools are displayed in many of the seed catalogs now published.

**BARTLETT MFG.  
COMPANY**  
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Detroit, Mich.



**NEW  
in design  
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DIFFERENT  
in principle  
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EXTRAORDINARY  
in results  
•**

Hoeing drudgery in garden and field is becoming a thing of the past with these new GARDEX Tools. Leaving behind all those hidebound traditions of a horse and buggy age, GARDEX engineers departed from the conventional shapes and built the fast and easy working GARDEX Tools.

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**GARDEX INC.**  
MICHIGAN CITY, INDIANA



**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Continued****Garden Tractors—Continued**

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.  
Shaw Mfg. Co.  
Galesburg, Kans.  
Standard Engine Co.  
Minneapolis, Minn.  
Utilitor Co., The  
Dayton, Ohio

**GRAFTING WAX**

Clark & Son, Walter E.  
Milford, Conn.  
(See Adv. on Page 115)  
Leonard & Son, A. M.  
Piqua, Ohio  
Pugsley & Morrison  
Yuba City, Calif.

**GRINDERS—HAND**

Arcade Mfg. Co.  
Freeport, Ill.  
Brinly Hardy Co.  
Louisville, Ky.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Letz Mfg. Co.  
Crown Point, Ind.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.

**HARROWS**

Henderson & Co., Peter  
New York, N. Y.

**HOES**

American Fork & Hoe Company  
Cleveland, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Hooper Co., Geo.  
Memphis, Tenn.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Leonard & Son, A. M.  
Piqua, Ohio  
Piqua Handle Mfg. Co.  
Piqua, Ohio  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**HORTICULTURAL TOOLS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Alliance Mfg. Co., The  
Alliance, Ohio  
American Fork & Hoe Co.  
Cleveland, Ohio  
Bartlett Mfg. Co.  
Detroit, Mich.  
(See Adv. on Page 125)  
Clyde Cutlery Co., The  
Clyde, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Disston & Sons  
Philadelphia, Pa.  
Hardie Mfg. Co.  
Hudson, Mich.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio

New Beeman Tractor Co., The  
Minneapolis, Minn.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Union Fork & Hoe Co.  
Columbus, Ohio

(See Adv. on Page 137)

**KNIVES (ASPARAGUS)**

Johnson, Inc., Wm.  
Newark, N. J.

**PLANT MARKERS**

Ideal Mfg. Co.  
Des Moines, Iowa  
S-W Supply Co.  
Girard, Kansas  
(See Adv. on Page 139)  
Yoho & Hooker  
Youngstown, Ohio

**PLANT PROTECTORS**

Ball-Biddle Co.  
Riverton, N. J.  
Calkins Machine Co.  
Spokane, Wash.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
(See Adv. on Page 161)  
Harris Mfg. Co., A. W.  
Sleepy Eye, Minn.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Plant Protector Co.  
Rochester, N. Y.

**PLANT SETTERS**

Acmeline Mfg. Co.  
Traverse City, Mich.  
Nagley Transplanter Co.  
Memphis, N. Y.

**PLANT SUPPORTS**

Ball-Biddle Co.  
Riverton, N. J.  
Erickson Co., Inc., C. E.  
Des Moines, Iowa  
Garden Supplies (1929) Ltd.  
Liverpool, England.  
Harris Mfg. Co., A. W. (Bands)  
Sleepy Eye, Minn.  
Henry & Lee  
New York, N. Y.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Igoe Bros.  
Brooklyn, N. Y.  
McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Star Expansion Bolt Co. (Hooks)  
New York, N. Y.  
S-W Supply Co. (Stakes)  
Girard, Kans.  
(See Adv. on Page 139)  
Thieman Harvester Co.  
Albert City, Iowa  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Vaughan's Seed Store  
Chicago, Ill.  
Woodcraft Co., The  
Dalton, N. Y.

**PLANTERS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Brinly Hardy Co.  
Louisville, Ky.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
New Beeman Tractor Co., The  
Minneapolis, Minn.  
S. & H. Set Onion Planter Co.  
Pleasant Valley, Iowa



## GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Continued

## PRUNING IMPLEMENTS

- Alliance Mfg. Co., The  
Alliance, Ohio  
Bartlett Mfg. Co.  
Detroit, Mich.  
(See Adv. on Page 125)  
C-K-R Co.  
Cleveland, Ohio  
Clark & Son, Walter E.  
Milford, Conn.  
(See Adv. on Page 115)  
Clyde Cutlery Co., The  
Clyde, Ohio  
Disston & Sons, Inc., Henry  
Philadelphia, Pa.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Johnson, Inc., Wm.  
Newark, N. J.  
J. W. S. Trading Co.  
New York, N. Y.  
Leonard & Son, A. M.  
Piqua, Ohio  
Nagley Transplanter Co.  
Memphis, N. Y.  
Northwest Fence & Wire Works  
Portland, Ore.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Rhodes Mfg. Co.  
Grand Rapids, Mich.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Village Blacksmith Folks, The  
Watertown, Wis.  
Wiss & Sons, J.  
Newark, N. J.

## RAKES

- Akron-Selle Co.  
Akron, Ohio  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Franklin Equipment Co.  
Monticello, Iowa  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Leonard & Son, A. M.  
Piqua, Ohio  
Piqua Handle Mfg. Co.  
Piqua, Ohio  
Sabin Machine Co.  
Cleveland, Ohio  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

## SEEDERS—BROADCAST

- Allen & Co., S. L.  
Philadelphia, Pa.  
Crown Mfg. Co. (Wheelbarrow)  
Phelps, N. Y.  
Cyclone Seeder Co.  
Urbana, Ind.  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Goodell Co.  
Antrim, N. H.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Root Mfg. Co. (Hopper Type)  
Cleveland, Ohio  
Salem Tool Co.  
Salem, Ohio  
(See Adv. on Page 125)  
Smith Agri. Chem. Co.  
Columbus, Ohio  
(See Adv. on Page 123)  
Star Seeder Co.  
Shortsville, N. Y.  
Thompson & Sons, O. E. (Wheelbarrow)  
Ypsilanti, Mich.  
(See Adv. on Page 139)

## SHOVELS

- Ames Shovel & Tool Co.  
North Easton, Mass.  
C-K-R Co.  
Cleveland, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio

## SICKLES

- Leonard & Son, A. M.  
Piqua, Ohio  
Simmons Hardware Co.  
St. Louis, Mo.

## SOIL SHREDDERS

- Kemp Mfg. Co.  
Erie, Pa.

## SPIKER AND TAMPER

- Pick Mfg. Co.  
Omaha, Nebr.

## TOOLS—GARDEN

- Akron-Selle Co.  
Akron, Ohio  
Alexander Mfg. Co.  
Ames, Iowa  
Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Alliance Mfg. Co., The  
Alliance, Ohio  
American Fork & Hoe Co.  
Cleveland, Ohio  
Ames Shovel & Tool Co.  
North Easton, Mass.  
Animal Trap Co. of America  
Lititz, Pa.  
Avery & Sons, B. F.  
Louisville, Ky.  
Brinly Hardy Co.  
Louisville, Ky.  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Franklin Equipment Co.  
Monticello, Iowa  
Gardex, Inc.  
Michigan City, Ind.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Henderson & Co., Peter (Harrows)  
New York, N. Y.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hooper Co., Geo.  
Memphis, Tenn.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Imperial Bit & Snap Co.  
Racine, Wis.  
Johnson, Inc., Wm.  
Newark, N. J.  
Kingsbury Mfg. Co.  
Keene, N. H.  
Leonard & Son, A. M.  
Piqua, Ohio  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Norcross & Sons, C. S.  
Bushnell, Ill.  
North Wayne Tool Co.  
Oakland, Maine  
Piqua Handle Mfg. Co.  
Piqua, Ohio  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Stanley Works  
New Britain, Conn.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)



**GARDEN AND FIELD IMPLEMENTS AND SUPPLIES—Concluded****TRACTORS**

(Also see Garden Tractors, Page 124)

Advance Rumely Thresher Co., Inc.  
La Porte, Ind.  
Allis-Chalmers Mfg. Co.  
Milwaukee, Wis.  
Case Co., J. I.  
Racine, Wis.  
Caterpillar Tractor Co.  
San Leandro, Calif.  
Cleveland Tractor Co.  
Cleveland, Ohio  
Ford Motor Co.  
Detroit, Mich.  
Gray Tractor Co., The  
Minneapolis, Minn.  
Gravelly Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
International Harvester Co.  
Chicago, Ill.  
Lawson Mfg. Co., John  
New Holstein, Wis.  
Monarch Tractors Corp.  
Springfield, Ill.  
Rogers Tractor & Trailer Co.  
Albion, Pa.  
Shaw Mfg. Co.  
Galesburg, Kans.  
Utilitor Co., The  
Dayton, Ohio  
Wetmore Tractor Mfg. Co.  
Sioux City, Iowa  
Wisconsin Farm Tractor Co.  
Sauk City, Wis.

**TRANSPLANTERS**

Nagley Transplanter Co.  
Memphis, N. Y.  
New Idea Spreader Co.  
Coldwater, Ohio  
Wiard Plow Co.  
Batavia, N. Y.

**TRAPS—MOLE & ANIMAL**

(See Mole &amp; Animal Traps—Page 138)

**TROWELS**

Akron-Selle Co.  
Akron, Ohio  
Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
C-K-R Co.  
Cleveland, Ohio  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
Marshalltown Trowel Co.  
Marshalltown, Ia.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.

Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Prophet Dandelion Puller Co.  
Prophetstown, Ill.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**VEGETABLE & ROOT WASHERS**

Felins Tying Machine Co.  
Milwaukee, Wis.  
Ingersoll Co., Chas. M.  
Rocky River, Ohio  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.

**WEEDERS**

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Animal Trap Co. of America  
Lititz, Pa.  
Arcade Mfg. Co.  
Freeport, Ill.  
Barker Mfg. Co.  
David City, Neb.  
C-K-R Co.  
Cleveland, Ohio  
Ellis-Keystone Agricultural Works  
Pottstown, Pa.  
(See Adv. on Page 125)  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Imperial Bit & Snap Co.  
Racine, Wis.  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)

Norcross & Sons, C. S.  
Bushnell, Ill.  
Prophet Dandelion Puller Co.  
Prophetstown, Ill.  
Reichard Mfg. Co., F. H.  
Bangor, Pa.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**WHEELBARROWS**

Defiance Box Co., The  
Defiance, Ohio  
Fairbanks Co.  
New York, N. Y.  
Red Star Products Corp.  
Cleveland, Ohio

**GREENHOUSE AND FLORAL SUPPLIES****FLORISTS' SUPPLIES**

Almo Trading & Importing Co.  
New York, N. Y. (Flower Vases)  
Barnard Co., W. W.  
Chicago, Ill.  
Bird & Son  
East Walpole, Mass.  
(See Adv. on Page 55)  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
Co-operative Flint Glass Co.  
Beaver Falls, Pa.  
(Hyacinth Glasses)  
Hampden Mfg. Co. (Flower Holder)  
New York, N. Y.

Houchin Co., Thos. W.  
Jersey City, N. J.  
Lewis Co., G. B.  
Watertown, Wis.  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Randall Co., A. L.  
Chicago, Ill.  
Smith & Young Co.  
Indianapolis, Ind.  
Uniform Products Co.  
New York, N. Y.  
Wilson, Inc., Andrew  
Springfield, N. J.  
(See Adv. on Page 145)



## GREENHOUSE AND FLORAL SUPPLIES—Continued

## FLOWER BOXES

Express Body Corp.  
Crystal Lake, Ill.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
**Hudson Mfg. Co., H. D.**  
**Chicago, Ill.**  
(See Adv. on Page 119)  
Savo Mfg. Co.  
Chicago, Ill.  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Yoho & Hooker (Cypress)  
Youngstown, Ohio

## GLASS

Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## GLASS SUBSTITUTE

Acetol Products, Inc.  
Wilmington, Del.  
Allen Brothers, Inc.  
Omaha, Nebr.  
Fleming Bros.  
Chicago, Ill.  
Flex-o-Glass Mfg. Co.  
Chicago, Ill.  
**Hoeft & Co., Inc.**  
**North Chicago, Ill.**  
(See Adv. on Page 155)  
Turner Bros.  
Bladen, Nebr.  
Vitalite Co.  
New York, N. Y.

## GREENHOUSE MATERIAL

Hammond Paint & Chemical Works  
Beacon, N. Y.  
(See Adv. on Page 143)  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Vitalite Co.  
New York, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## HOT BED SASH

Callahan Co., T. J.  
Dayton, Ohio  
Foley Greenhouse Mfg. Co.  
Chicago, Ill.  
Gordon-Van Tine Co.  
Davenport, Iowa  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Vitalite Co.  
New York, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## HOT BED SUPPLIES

Cleveland Textile & Bag Co.  
Cleveland, Ohio  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Uniform Products Co.  
New York, N. Y.

## LABELS—PLANT

Arcade Mfg. Co.  
Freeport, Ill.

Ball & Socket Mfg. Co.  
West Cheshire, Conn.  
Haas & Sons, Jos.  
Newport, Ky.  
Ideal Mfg. Co.  
Des Moines, Iowa  
Smock, L. J. (Wood)  
Cochran, Pa.  
Stewart Co., Chas.  
Roseland, N. J.  
**S-W Supply Co.**  
**Girard, Kans.**  
(See Adv. on Page 139)  
Yoho & Hooker  
Youngstown, Ohio

## MOSS, PEAT

Atkins & Durbrow, Inc.—(Horticultural)  
New York, Chicago & Boston  
(See Adv. below)  
Balfour, Guthrie & Co.  
San Francisco, Calif.  
Bremermann & Co., Ernst  
New York, N. Y.  
Consumers Import Co.  
New York, N. Y.  
Harvey Seed Co. (Grain & Horticultural)  
Buffalo, N. Y.  
Ideal Peat Moss Co. (Horticultural)  
New York, N. Y.  
Klein Mfg. Co.  
Burlington, Iowa  
**Loewith, Inc., Julius**  
**New York City, N. Y.**  
(See Adv. on Page 63)  
**McHutchison & Co.**  
**New York, N. Y.**  
(See Adv. on Page 161)  
Miller & Son, Frank  
Chicago, Ill.  
Page, Louis E.  
Boston, Mass.  
Peat Importing Corp.  
Los Angeles, Calif.  
**Philadelphia Seed Co.**  
**Philadelphia, Pa.**  
(See Adv. on Page 26)  
Phillips, C. J.  
St. Louis, Mo.  
Premier Peat Moss Corp.  
New York, N. Y.  
**Scarlett & Co., Wm. G.**  
**Baltimore, Md.**  
(See Adv. on Page 40)  
Vaughan's Seed Store  
Chicago, Ill.

## MOSS, SPHAGNUM

American Bulb Co.  
Chicago, Ill.  
(See Adv. on Page 111)  
Consumers Import Co.  
New York, N. Y.  
Vaughan's Seed Store  
Chicago, Ill.  
**Williamson, Inc., Garfield**  
**New York, N. Y.**  
(See Adv. on Page 92)  
Wisconsin Moss Co.  
Wisconsin Rapids, Wis.

## PEAT MOSS

GPM—Selected quality, green burlap bale head, highly advertised.  
OKPL—Medium grinding Poultry Litter, chocolate end bale, extensively advertised.

SORBEX—Ultra-fine grinding of Peat Moss, 10 bushel bags.

DRICONURE—Peat Moss and Cow Manure—a complete organic fertilizer.

**ATKINS & DURBROW, INC., 165 John Street, New York, N. Y.**  
**177 Milk St., Boston, Mass.** **2367 Logan Blvd., Chicago, Ill.**



## GREENHOUSE AND FLORAL SUPPLIES—Concluded

## POTS—FLOWER

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Richmond Cedar Works (Cedar Tubs)**  
 Richmond, Va.  
**Syracuse Pottery Co.**  
 Syracuse, N. Y.  
**Western Stoneware Co.**  
 Monmouth, Ill.  
**Zane Pottery Co.**  
 So. Zanesville, Ohio

## POT COVERS—FLOWER

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)

## POT SAUCERS—FLOWER

**Almo Trading & Importing Co.**  
 New York, N. Y.  
**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Syracuse Pottery Co., Inc.**  
 Syracuse, N. Y.  
**Zane Pottery Co.**  
 Zanesville, Ohio

## SEED AND PLANT FORCERS

**Ball-Biddle Co.**  
 Riverton, N. J.

**American Fork & Hoe Co.**  
 Cleveland, Ohio  
**Virginia-Carolina Chemical Corp.**  
 Richmond, Va.

## SEED FLATS

**Yoho & Hooker (Cypress)**  
 Youngstown, Ohio

## TRANSPLANTING BOXES

**Ball-Biddle Co.**  
 Riverton, N. J.  
**Belle City Basket Co.**  
 Racine, Wis.

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)

**Burlington Willowware Co.**  
 Burlington, Iowa

## TRANSPLANTING POTS

**Bird & Son, Inc.**  
**East Walpole, N. Y.**  
 (See Adv. on Page 55)

**Lily Tulip Cup Corp.**  
 New York, N. Y.

## TREE AND PLANT TUBS

**Richmond Cedar Works**  
 Richmond, Va.

## INOCULANTS AND PLANT FOODS

## INOCULANTS

**Dickinson Co., The Albert**  
 Chicago, Ill.  
 (See Adv. on Page 132)  
**Edwards Laboratory, The**  
 Lansing, Mich.  
**Kalo Inoculant Co.**  
 Quincy, Ill.  
 (See Adv. on Page 135)  
**McQueen Bacteria Co.**  
 Baltic, Ohio  
**Nitragin Co., The**  
 Milwaukee, Wis.  
 (See Adv. on Page 135)  
**Stimuplant Laboratories, Inc.**  
 Long Island City, N. Y.  
 (See Adv. on Page 135)  
**Urbana Laboratories**  
 Urbana, Ill.  
 (See Adv. on Page 134)

## PLANT FOODS

**American Agricultural Chem. Co.**  
 New York, N. Y.  
**Armour Fertilizer Works**  
 Atlanta, Ga.  
**Barrett Co., The**  
 New York City, N. Y.  
**Bon Arbor Chemical Co.**  
 Paterson, N. J.  
**Carus Chemical Co.**  
 La Salle, Ill.  
**Darling & Co.**  
 Chicago, Ill.  
**Fertilawn Co.**  
 Hamilton, N. Y.  
 (See Adv. on Page 31)

**Goulard & Olena, Inc.**  
 New York, N. Y.  
 (See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
 Cleveland, Ohio  
 (See Adv. on Second Cover)  
**The Heil Co.**  
 Milwaukee, Wis.  
**International Agricultural Corp.**  
 New York, N. Y.  
**Plantabbs Corporation**  
 Baltimore, Md.  
**Premier Poultry Manure Co.**  
 Chicago, Ill.  
**Pulverized Manure Co.**  
 Chicago, Ill.  
 (See Adv. on Page 123)  
**Sewerage Commission**  
 Milwaukee, Wis.  
**Smith Agricultural Chemical Co.**  
 Columbus, Ohio  
 (See Adv. on Page 123)  
**Stimuplant Laboratories, Inc.**  
 Long Island City, N. Y.  
 (See Adv. on Page 135)  
**Swift & Co.**  
 Chicago, Ill.  
**Synthetic Nitrogen Products Corp.**  
 New York, N. Y.  
**Tennessee Corporation**  
 New York, N. Y.  
**Virginia-Carolina Chem. Corp.**  
 Richmond, Va.  
**Williamson, Inc., Garfield**  
 New York, N. Y.  
 (See Adv. on Page 92)  
**Wilson, Inc., Andrew**  
 Springfield, N. J.  
 (See Adv. on Page 145)



Our new introduction - for spot and for contract  
**ALL-DOUBLE DWARF PEONY - FL.**  
**"CARMINE GLORY"**



**T. SAKATA & CO.**

**YOKOHAMA, JAPAN**

The originators of ALL-DOUBLE or 100% Double Giant  
Petunias and other novelties.

We grow a full line of Flower Seeds and Specialize in  
PETUNIA, PANSY, PHLOX, DOUBLE PORTULACA,  
etc.

Write for general catalogue and further details

**HERBST BROTHERS, Inc.**

92 WARREN STREET

NEW YORK, N. Y.

Agents for United States and Canada



# NOD-O-GEN

## *Quality*

The culture with the highest efficiency test. Jelly type culture most strongly recommended by agricultural authorities. Best strains of proper organisms effective and proved in constant field and laboratory tests. Finest ingredients used. Produced in an approved laboratory under personal supervision of a leading technical bacteriologist.

## *Sales Appeal*

The culture having all the good advantages. Patented ventilating stopper. Most attractive label and packaging. It sells at sight - you can see it is good. Sales increasing year after year. Now in the 21st year of production in our own laboratory. Nationally known. Dealer sales helps and advertising supplied.

## *Low Cost*

The culture selling at most reasonable price consistent with high quality. Economical to the user - highly profitable to the dealer.

Write the United States Department of Agriculture or your local experiment station regarding NOD-O-GEN.

We will be glad to place full particulars before any dealer interested in joining the host of satisfied NOD-O-GEN distributors.



*Produced in Laboratories of*

**THE ALBERT DICKINSON COMPANY**  
CHICAGO ILLINOIS

Refiners & Distributors PINE TREE Farm Seeds & GLOBE FEEDS



# LEGUME INOCULATION

**G**ROWERS of legume crops find that seed inoculation pays. It pays for the following reasons: (1) It enables plants to secure nitrogen from the air and passes it on to the plants for their use. (2) It prevents crop failures. Very often a legume crop is a complete failure if the seed has not been inoculated. (3) It increases crop yields; in some cases several hundred per cent. (4) It improves the crop quality. (5) It enriches the soil.

## Reliable Dealers

There are many reliable manufacturers of legume inoculation material. It is not necessary any longer to use cultures from state agricultural experiment stations, for these commercial concerns have reliable and tested cultures. These firms employ bacteriologists who have made this line of work a life-long study. Each culture for the different kinds of legumes is carefully prepared and when properly mixed with the seeds to be planted the desired inoculation results.

These commercial cultures are inspected and tested from time to time by state and government officials, which tends to keep manufacturers careful as to the potency of their product. As a result of the painstaking manner in which these legume

cultures are manufactured, some excellent cultures are now available.

## Increased Demand

The demand for inoculants is increasing each year. Farmers are slowly but surely finding out that inoculating seed pays. This demand is bound to increase as time goes on and there is little question but that the demand will be doubled in a very short time.

Due to this increased interest in inoculation seed dealers are finding that it pays to sell well known brands of inoculants.

The margin of profit obtained from the retailing of legume inoculants is very attractive. Seedsmen should put special stress on their sales efforts to urge all buyers of legume seed to purchase a supply of inoculants sufficient to treat the seed they buy.

The manufacturers of legume inoculants put up their products in attractive containers thus making them practical for display purposes. They also cooperate with seed dealers in supplying them with window display material, electros, and advertising copy for seed catalogs and local newspaper advertising. In fact,



Courtesy of Agricultural Experiment Station, Purdue University, Lafayette, Ind.

(Left) Limestone and a commercial inoculant were used on this field of sweet clover.  
(Right) Limestone only was used.



these manufacturers make every effort possible to aid seedsmen in promoting the sale of legume inoculants.

### Seeds That Need Inoculating

The following seeds require inoculation in order to assure a perfect stand: Red clover, alfalfa, sweet clover, alsike clover, white clover, crimson clover, bur clover, yellow trefoil, lespedeza, garden peas, field peas, lentil, vetches, sweet peas, cowpeas, soybeans, garden beans, field beans, lima beans, velvet beans, peanuts, beggarweed, lupines, sainfoin and other legumes.

### Value of a Culture

Dr. E. B. Fred of the Wisconsin Agricultural Experiment Station says that the value of a culture seems to depend in a large measure on at least five factors:

1—Upon the organism. It is essential that the culture of bacteria contain the proper organism to form nodules on the desired host plant. In general, it is desirable to have only the one type of organism in the culture.

2—Upon the efficiency of the strain. Select an active strain of the desired organism. Because of the variation between strains in relation to effectiveness, every

effort should be made to select strains of the bacteria which are known to be of decided benefit to the host plant, and to keep these tested cultures under conditions which will maintain the organisms in an active state.

3—Upon the number of bacteria. Just how many bacteria are required in order to produce the maximum number of effective nodules is not known. In general an abundance of the bacteria, probably several thousand per seed, produces the best results.

4—Upon age of culture. Old cultures may be low in total number of viable cells and those which are alive are presumably in a weakened condition. Naturally a biological product such as a culture of bacteria decreases rapidly in number of vegetative cells with an increase in age. To secure the best result use only young active cultures.

5—Upon culture medium. The substrate on which the organisms are grown exerts a profound influence on the number and efficiency of the cells. The authors prefer a medium low in available nitrogen and with a neutralizing agent, such as calcium carbonate, present.

*Superior  
Strains*



*Fresh  
Strong*

## INOCULATION OF LEGUMES

*Backed by*

**Staff of Specially Trained Scientists**

**Modern Scientific Laboratory**

**Controlled Greenhouse Tests, Extensive Field Experiments**

**Reliable Organization and Sound Policies**

*Offers Large Profit for Small Investment*

**THE URBANA LABORATORIES,**

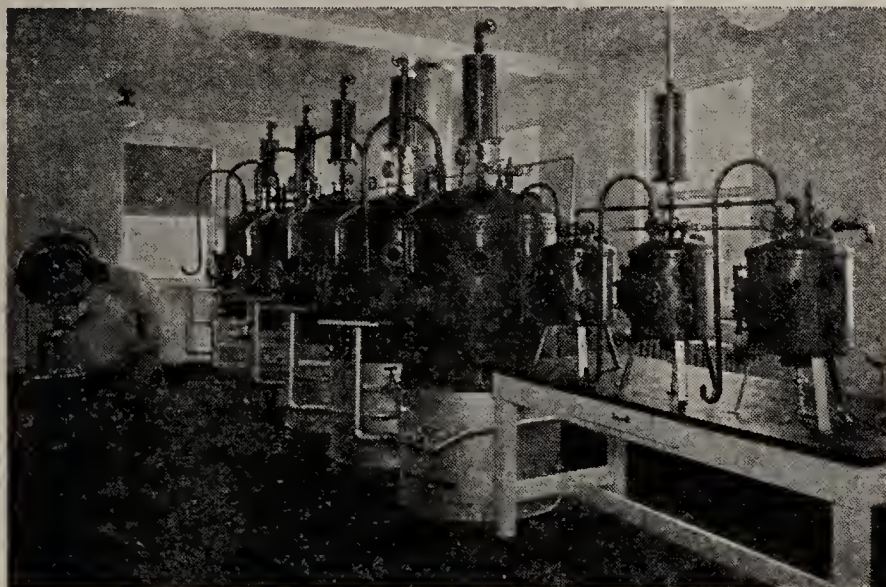
**URBANA, ILLINOIS**

**Let SEED WORLD Service Bureau help you.  
No charge. Just write us and we will do the rest.  
SEED WORLD, 325 W. Huron St., Chicago**



# NITRAGIN'S NEW HOME

*contains the most modern laboratory of its kind in the world.*



Mass production of legume bacteria is scientifically controlled in these exclusive NITRAGIN patented incubators (U. S. Pat. No. 1,618,461). The bacteria are grown under a special process (U. S. Pat. No. 1,909,622) which insures uniformity in quality, and makes possible the high bacteria count on every NITRAGIN can.



**The Nitragin Co., Inc.**  
3747 No. Booth St.,  
Milwaukee, Wis.

FOR over 35 years NITRAGIN — The Original Legume Inoculator — has maintained its leadership . . . because there is no substitute for quality.

NITRAGIN is an important item that builds seed sales and seed reputations. Always dependable.

Extensive national advertising — radio — dealer helps — popular prices — liberal margins make NITRAGIN a profit builder too.

Write for discounts.

for  
alfalfa,  
clovers,  
soy beans,  
cow peas,  
vetch,  
peas,  
beans—  
all legumes



## EARP-THOMAS PROCESS MOIST POWDER HUMOGERM

A HUMUS BASE LEGUME INOCULANT

Users 1935 Price  
Based on Packing Guarantee

**3 1/3c Per Billion**

HIGH-BRED SELECTED  
NITROGEN-FIXING BACTERIA

Cash in on the increased sales, make more profit from inoculation by featuring recognized highest quality at

**50c Per Bushel**

(Small Seed Size)

35c Per Bu. Large Seeds

**KALO INOCULANT CO.**  
Quincy, Illinois

## A QUICK TRIP

From US to YOU to Your CUSTOMER

Every customer who buys a plant, flower or vegetable seed needs food for healthier growth.

No plant can slack as Stim-U-Plant acts, and every successful plant enhances your reputation.

## STIM-U-PLANT

The Original Plant Food Tablet.

Most efficient plant food on market  
Nationally advertised—Sells easily

INCREASES YOUR PROFITS

SIZES 10c, 25c, 75c, \$3.50

Packed in attractively, lithographed packages and cartons for counter display. Quick turnover.

Ask for attractive sales offer.

STIMUPLANT LABORATORIES, INC.  
Long Island City, N. Y.



## LAWN IMPLEMENTS AND SUPPLIES

### DIGGERS—DANDELION

Prophet Dandelion Puller Co.  
Prophetstown, Ill.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

### GARDEN HOSE

Atlantic Mfg. Co.  
Wilmington, Del.  
Diamond Rubber Co., Inc.  
Akron, Ohio  
Electric Hose & Rubber Co.  
Wilmington, Del.  
Gates Rubber Co.  
Denver, Colo.  
Goodrich Rubber Co.  
Akron, Ohio  
Goodyear Rubber Co.  
Akron, Ohio  
Hayes Pump & Planter Co.  
Galva, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### GRASS SHEARS

Alliance Mfg. Co.  
Alliance, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio  
Peck Stow & Wilcox Co.  
Southington, Conn.  
Smith & Son, Inc., Seymour  
Oakville, Conn.

### HEDGE TRIMMERS

C-K-R Co.  
Cleveland, Ohio  
Clyde Cutlery Co., The  
Clyde, Ohio  
Detco Mfg. Co.  
Oaks, Montgomery Co., Pa.  
(See Adv. on Page 137)  
Disston & Sons, Inc., Henry  
Philadelphia, Pa.  
Jaeger Prod. Co.  
Trenton, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
Skillsaw, Inc. (Electric)  
Chicago, Ill.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Village Blacksmith Folks, The  
Watertown, Wis.  
Wallington Machine Co., Inc. (Electric)  
Passaic, N. J.

### HOSE COUPLINGS

Allen Mfg. Co., W. D.  
Chicago, Ill.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### HOSE NOZZLES

Allen Mfg. Co., W. D.  
Chicago, Ill.  
Electric Sprayit Co.  
South Bend, Ind.  
McClain Bros.  
Canton, Ohio  
Smith & Co., D. B.  
Utica, N. Y.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### HOSE REELS

Anker-Holth Mfg. Co.  
Port Huron, Mich.  
C-K-R Co.  
Cleveland, Ohio

Specialty Mfg. Co.  
St. Paul, Minn.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.

### LAWN EDGE TRIMMERS

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
C-K-R Co.  
Cleveland, Ohio  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Imperial Bit & Snap Co.  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
Philadelphia Lawn Mower Co., Inc.  
Philadelphia, Pa.  
Superior Metal Spinning & Mfg. Co.  
Toledo, Ohio  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

### LAWN FURNITURE AND DECORATIONS

Ball-Biddle Co.  
Riverton, N. J.  
Brush Pottery Co. (Fountains—Vases)  
Zanesville, Ohio  
Buffalo Wire Works Co., Inc.  
Buffalo, N. Y.  
Erickson Co., C. E.  
Des Moines, Iowa  
Express Body Corp.  
Crystal Lake, Ill.  
Hartman-Sanders  
Chicago, Ill.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
Humboldt Redwood Lumber Co.  
Chicago, Ill.  
Northwestern Fence & Wire Works  
Portland, Ore.  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa  
Smith Wire & Iron Wks., F. P.  
Chicago, Ill.  
Standard Ventilator Co. (Trellis)  
Lewisburg, Pa.  
Staples Foundry Co.  
Mount Vernon, Ind.  
Testrite Instrument Co.  
New York, N. Y.  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Western Stoneware Co.  
Monmouth, Ill.  
Woodcraft Co., The  
Dalton, N. Y.  
Yoho & Hooker (Trellis)  
Youngstown, Ohio

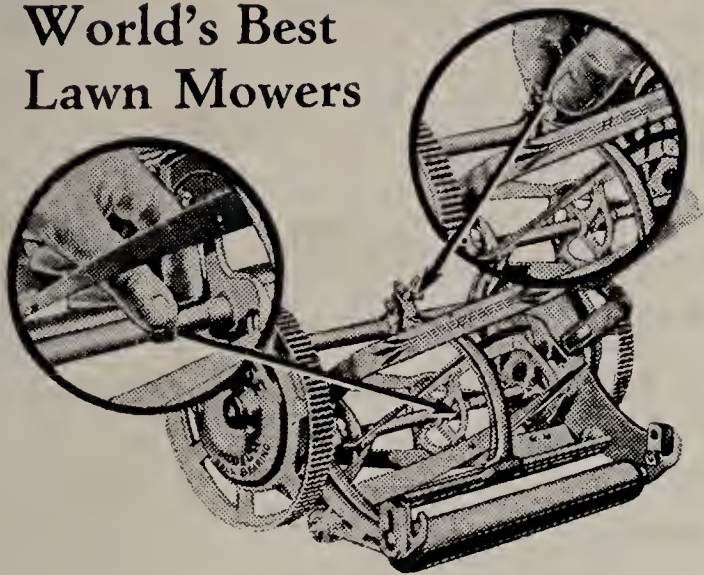
### LAWN MOWERS

American Lawn Mower Co.  
Muncie, Ind.  
Blair Mfg. Co.  
Springfield, Mass.  
Brinly Hardy Co.  
Louisville, Ky.  
Clipper Mfg. Co.  
Dixon, Ill.  
Coldwell Lawn Mower Co.  
Newburgh, N. Y.  
Cooper Mfg. Co. (Power)  
Marshalltown, Iowa  
Cushman Motor Works (Power)  
Lincoln, Nebr.  
Dille & McGuire Mfg. Co.  
Richmond, Ind.  
Eclipse Lawn Mower Co.  
Prophetstown, Ill.  
(See Adv. on Page 137)  
Elwood Lawn Mower Mfg. Co.  
Elwood, Ind.  
Gilson-Bolens Mfg. Co. (Power)  
Port Washington, Wis.



# Eclipse

## World's Best Lawn Mowers



### Nationally Accepted Profitable to Sell

Exclusive Finger Tip Adjustment and Automatic Self Sharpening . . . plus lawn protection, are features that create the desire to own a genuine Eclipse Mower. Millions of home owners know and demand Eclipse, because of years of national advertising.

### Eclipse Power Mowers

Economical . . . efficient . . . simple to operate. Three sizes. Powered for all lawns. Priced from \$137.50 up. Write for our proposition to seed merchants on hand and power mowers.



Eclipse Lawn Mower Company  
Manufacturers  
PROPHETSTOWN, ILL., U. S. A.

## Sell Tools That Help You **SELL GARDENING**

**UNION** forged steel tools (lighter, stronger, better designed) encourage more home gardening by making it easier. We have also bought and distributed over 1,000,000 copies of Harry O'Brien's famous garden book, telling people how to buy and use more seeds, plants, fertilizers, etc., as well as tools.

**WE BOTH BENEFIT** when you sell **UNION** Garden Tools.

**This DISPLAY  
RACK Makes  
50% More  
Sales!**

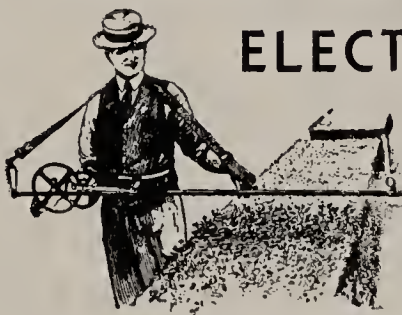
Puts tools out where people can see and handle them. Has increased sales for 7000 dealers. Ties up with **UNION** advertising in leading national magazines. Portable, all-steel, brilliantly enameled. Worth \$7.50. Get it **FREE**.

*Send for Free Offer!*



**THE UNION FORK & HOE CO.**  
**COLUMBUS, OHIO**

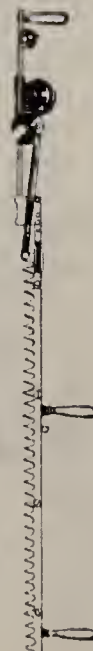
## Little Wonder HEDGE TRIMMER ELECTRIC AND HAND POWER



Thousands in use all over the world—A Marvel—Trims ten times faster than hand shears. Easy to operate. A model and size to meet every need.

*Write for distributors  
terms.*

**DETCO MFG. CO.**  
**OAKS, MONTG. CO., PA.**





**LAWN IMPLEMENTS AND SUPPLIES—Concluded****Lawn Mowers—Continued**

Henley Lawn Mower Co.  
Richmond, Ind.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Ideal Power Lawn Mower Co. (Power)  
Lansing, Mich.  
Jacobsen Mfg. Co. (Power)  
Racine, Wis.  
Mast, Foos Co.  
Springfield, Ohio  
Milbradt Mfg. Co. (Power)  
St. Louis, Mo.  
Modern Machine Works, Inc. (Power)  
Milwaukee, Wis.  
Moto-Mower Co. (Power)  
Detroit, Mich.  
New Beeman Tractor Co., The (Power)  
Minneapolis, Minn.  
Outboard Motors Corp.  
Milwaukee, Wis.  
Philadelphia Lawn Mower Co., Inc.  
Philadelphia, Pa.  
Shaw Mfg. Co. (Power)  
Galesburg, Kansas  
Stearns & Co., E. C. (Power)  
Syracuse, N. Y.  
Toro Mfg. Co.  
Minneapolis, Minn.  
Townsend & Co., S. P.  
Bloomfield, N. J.

**LAWN ROLLERS**

Caledonia Bean Harvester Works  
Caledonia, N. Y.  
Graham & Co., John H.  
New York City, N. Y.  
Leonard & Son, A. M.  
Piqua, Ohio  
Toro Mfg. Co.  
Minneapolis, Minn.  
Wilder-Strong Implement Co.  
Monroe, Mich.  
Worthington Mower Co.  
Stroudsburg, Pa.

**LAWN SEEDERS**

Salem Tool Co.  
Salem, Ohio  
(See Adv. on Page 125)  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
(See Adv. on Page 139)

**LAWN SPRINKLERS**

Allen Mfg. Co., W. D.  
Chicago, Ill.  
Alsteel Mfg. Co.  
Battle Creek, Mich.  
Armstrong Electric & Mfg. Corp.  
Huntington, W. Va.  
Chicago Flexible Shaft Co.  
Chicago, Ill.  
Coldwell Lawn Mower Co.  
Newburgh, N. Y.  
Dayton Irrigation Co.  
Dayton, Ohio  
Diamond Rubber Co.  
Akron, Ohio  
Double Rotary Sprinkler Co.  
Kansas City, Mo.  
Imperial Bit & Snap Co.  
Racine, Wis.  
Kopcsay, Jos  
South Bend, Ind.

Leonard & Son, A. M.  
Piqua, Ohio  
March Automatic Irrigation Co.  
Muskegon, Mich.  
Peck Bros. & Co.  
New Haven, Conn.  
Rose Mfg. Co., Frank  
Hastings, Nebr.  
Smith & Co., D. B.  
Utica, N. Y.  
Tillinghast Rubber Co., Inc., B. C.  
Philadelphia, Pa.  
White Showers, Inc.  
Detroit, Mich.  
X. L. Mfg. Co.  
Chicago, Ill.  
(See Adv. on Page 139)

**LIME**

International Agricultural Corp.  
New York, N. Y.  
Marble Cliff Quarries Co.  
Columbus, Ohio

**MOLE AND ANIMAL TRAPS**

Abington Trap Co.  
Abington, Ill.  
Animal Trap Co. of America  
Lititz, Pa.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Grelle, C. E. (Mole)  
Portland, Ore.  
(See Adv. on Page 55)  
Macabee Gopher Trap Co. (Gopher)  
Los Gatos, Calif.  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Pratt Co., Wm. E.  
Joliet, Ill.  
Roper Co., J. R.  
San Leandro, Calif.  
Schroeter Bros. Hdwe. Co. (Mole)  
St. Louis, Mo.

**NOZZLE HOLDERS**

Anker Holth Mfg. Co.  
Port Huron, Mich.

**RAKES—DANDELION AND LAWN**

Hall Mfg. Co. (Lawn)  
Cedar Rapids, Iowa  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**ROCK GARDEN NOVELTIES**

Ball-Biddle Co. (Trellis)  
Riverton, N. J.  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Western Stoneware Co.  
Monmouth, Ill.

**ROOT WATERER & FERTILIZER**

Stauffer Machine Works  
Honey Brook, Pa.

**SOD CUTTERS**

Lane & Son, M. R.  
Ardmore, Penna.  
Union Fork & Hoe Co.  
Columbus, Ohio  
(See Adv. on Page 137)

**Patronize those who made it possible  
to publish this Directory**

**See Advertisers' Index on page 180**





## PROFITABLE for CATALOG & STORE *Lawnettes*

Made in five different sizes

Every Lawn needs one

The easy, quick, dependable way of distributing lawn grass seed, plant foods and other materials in the required amount.

Our Thompson Seeders and Spreaders open up tremendous sales possibilities for you with your prospects and customers.

Let us explain how easily with our proposition you can secure increased sales—write today.

**O. E. THOMPSON & SONS**  
121 RIVER BLVD.  
YPSILANTI MICHIGAN



« « « « « «

POPULAR AND  
PROFITABLE  
ANDROCK GARDEN  
ACCESSORIES  
FOR YOUR 1935 CATALOG

Reddick Mole Trap  
Little Giant Mole Trap  
Interchangeable Wire Plant Supports  
One and Two-Eye Wire Stakes  
Wire Wreath Easels  
Sectional Flower Garden Fence and  
Plant Support  
Sectional Corner Guard Fence  
Hanging Baskets  
Hanging Basket Hook  
Flower Pot Bracket  
Extra-Heavy, All-Steel Weeders (Long  
and Short Handle)  
Decorative Bird Sets  
Garden Hose Supporter  
Star Pocket Gopher Trap

Ask for catalog and prices

**MICHIGAN WIRE GOODS CO.**  
NILES - - MICHIGAN

## PERFECTION MARKERS

ARE ALWAYS IN DEMAND BY YOUR SEED CUSTOMERS  
because they want Sturdy, Convenient, Economical markers  
THE PERFECTION LINE IS A COMPLETE LINE



Plant Stake

a marker for every possible need.

Perfection Markers are made from galvanized sheets and welded together—they are practically indestructible and may be used year after year, an indefinite number of times, for a variety of markings. Green baked enamel finish. Write for catalog, samples and dealer's discount.

**The S-W SUPPLY CO.**

GIRARD

KANSAS



Garden Marker



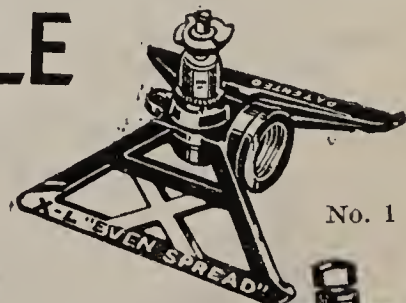
## INCOMPARABLE

As to Performance, Discounts,  
Low Prices, Appearance

## Profit Producers

Large difference between Factory and Retail price allows very attractive Profits to Jobbers and Dealers. Every X. L. Sprinkler UNCONDITIONALLY guaranteed to satisfy.

**X. L. MFG. CO.** 3806 Montrose Ave.  
CHICAGO, ILL.



No. 1



No. 11

Manufacturers of "Even Spread"—"5 in 1" and "Hydro Spray" Sprinklers. Sprinkler Heads for Irrigation—Fountains—Air conditioning, etc.



## SPRAYERS AND SPRAY MATERIALS

Insecticides, Fungicides and Repellents

### ANIMAL DIPS

- Carbola Chemical Co.  
Natural Bridge, N. Y.
- Carco Spray Co., Inc.  
Tacoma, Wash.
- Chipman Chemical Co., Inc.  
Bound Brook, N. J.
- Conkey Co., G. E.  
Cleveland, Ohio
- General Chem. Co.  
New York, N. Y.
- Germo Mfg. Co.  
St. Louis, Mo.
- Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)
- Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)
- Lee Co., Geo. H.  
Omaha, Neb.
- LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.
- Merck & Co., Inc.  
Rahway, N. J.
- Nicotine Mfg. Co.  
Henderson, Ky.
- Pratt Food Co.  
Philadelphia, Pa.
- Sherwin-Williams Co.  
Cleveland, Ohio
- Tobacco By-Products & Chem. Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

### COPPER OXIDE (RED)

- Rohm & Haas Co.**  
Philadelphia, Pa.  
(See Adv. on Page 145)

### CREOSOTE OIL

- C-A Wood Preserver Co.**  
St. Louis, Mo.  
(See Adv. on Page 155)

### CROW REPELLENTS

- Bowker Chemical Co.  
New York, N. Y.
- Cedar Hill Formulae Co.  
New Britain, Conn.
- Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)
- Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)
- Hammond Paint & Chem. Co.**  
Beacon, N. Y.  
(See Adv. on page 143)

### DOG REPELLENTS

- Acme White Lead & Color Works**  
Detroit, Mich.  
(See Adv. on Page 153)
- Bohlender Plant Chemicals, Inc.**  
Tipppecanoe City, Ohio  
(See Adv. on Page 141)
- Hammond Paint & Chem. Co.**  
Beacon, N. Y.  
(See Adv. on page 143)

- Mell-Norr  
Fort Wayne, Ind.
- Tobacco By-Products & Chem. Corp.**  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

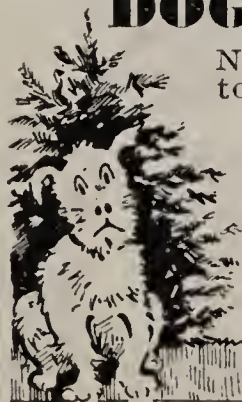
### DUSTERS

- Acmeline Mfg. Co.  
Traverse City, Mich.
- Bowker Chemical Co.  
New York, N. Y.
- Brown Co., E. C.  
Rochester, N. Y.
- Chipman Chem. Co., Inc.  
Bound Brook, N. J.
- Dobbins Mfg. Co.**  
North St. Paul, Minn.  
(See Adv. on Page 141)
- Electric Sprayit Co.  
South Bend, Ind.
- Feeny Manufacturing Co.  
Muncie, Ind.
- "Friend" Mfg. Co.  
Gasport, N. Y.
- Hoeft & Co.**  
North Chicago, Ill.  
(See Adv. on Page 155)
- Houchin Co., Thos. W.  
Jersey City, N. J.
- Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)
- Lirio, P. E.  
Vineland, N. J.
- Los Angeles Chemical Co.  
Los Angeles, Cal.
- Peerless Dust Gun Co.  
Cleveland, Ohio
- Root Mfg. Co.  
Cleveland, Ohio
- Smith & Co., Inc., D. B.  
Utica, N. Y.
- Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

### FLY REPELLENTS

- Chipman Chem. Co., Inc.  
Bound Brook, N. J.
- Electric Sprayit Co.  
South Bend, Ind.
- General Laboratories, Inc.  
Philadelphia, Pa.
- Germo Mfg. Co.  
St. Louis, Mo.
- Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)
- Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)
- LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.
- Rex Research Corp.  
Toledo, Ohio
- Tanglefoot Co., The  
Grand Rapids, Mich.
- Toledo Rex Spray Co.  
Toledo, Ohio

## DOGS MUST LEARN TO DISCRIMINATE



No one wants stained and discolored shrubbery and so dogs must learn to keep all four feet on the ground around the premises. 1½ teaspoonfuls of "Black Leaf 40" per gallon of water sprayed on the lower branches of evergreens and shrubbery will prevent dogs from committing nuisance. Harmless to dogs—but they do not like the odor.

This new use now added to the many other uses for "Black Leaf 40" is opening up a still broader market and attracting a new group of customers for this fast-selling, steady repeating insecticide.

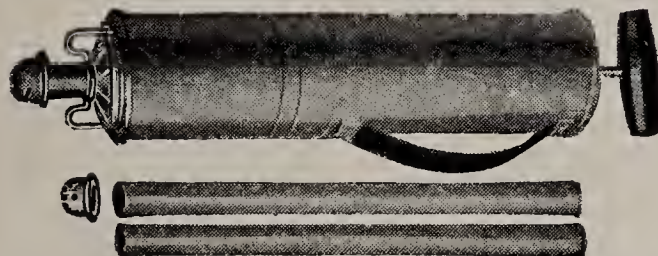
Tobacco By-Products & Chemical Corp. Inc.  
Louisville, Kentucky

**Black  
Leaf  
40**



**Fun-L-Fill**

Dobbins Fun-L-Fill Sprayers fill without spilling. A great convenience; a great saving. Dobbins Sprayers will increase your sales and profits.



We manufacture a complete line of hand and crank power Dusters.

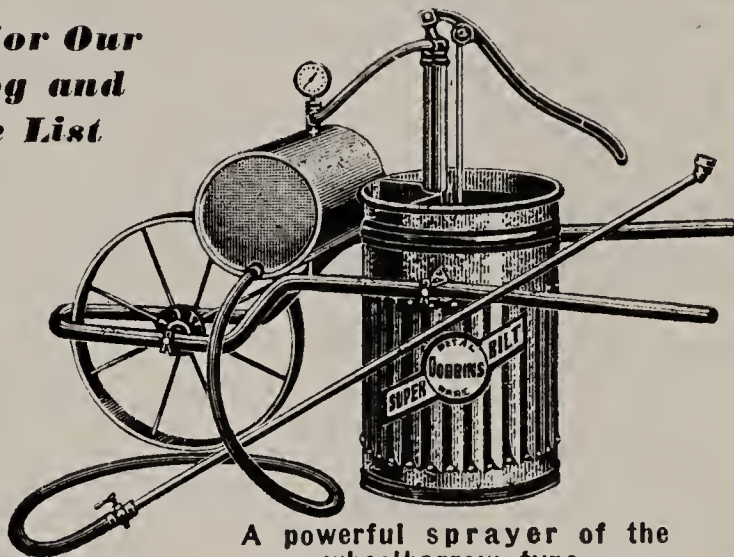
## DOBBINS SUPERBILT SPRAYERS



A complete line of  
Tin Atomizers.

You will find Dobbins Superbilt Sprayers a very profitable line to feature in your seed catalog, or over-counter sales. Sprayers go hand-in-hand with seed and insecticide sales. Seed catalog copy and electros furnished on request.

**Write for Our  
Catalog and  
Price List**



A powerful sprayer of the  
wheelbarrow type.

**DOBBINS MANUFACTURING CO., No. St. Paul, Minn.**

## SEED BAG TRIERS

**QUICK, SAFE  
CONVENIENT**

Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

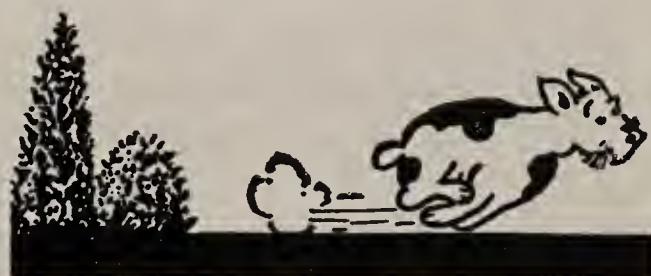
5 or 6 inches long,  
Price \$1.00 each,  
\$10.50 per doz.

9 in. long, with  
metal shield,  
Price \$2.00 each.

12 in. long, with  
metal shield,  
Price \$3.00 each.



**SEED TRADE REPORTING BUREAU  
325 W. Huron St. CHICAGO, ILL.**



## "DOGZOFF"

Copyright 1933

*A low priced—  
quick selling item*

that has become very popular in the seed trade and dealers are realizing an unusually good profit.

**DOGZOFF**—The only lasting spray that keeps dogs, cats, rabbits, moles, mice and varmints from places not wanted. Your customers need it. Sells fast. Long profit. Be sure to stock it this year. Write for dealers' prices.

## Bohlender

**PLANT CHEMICALS, INC.**

**TIPPECANOE CITY, OHIO**

Colmery & Post, 250 S. Broad St., Philadelphia, Pa., Distributors for New England and Middle Atlantic States.



## SPRAYERS AND SPRAY MATERIALS—Continued

## Fly Repellents—Continued

**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
 (See Adv. on Page 145)

## FORMALDEHYDE DUST

**Rohm & Haas Co.**  
**Philadelphia, Pa.**  
 (See Adv. on Page 145)

## FUMIGANTS

**American Cyanamid & Chem. Co.**  
**New York City, N. Y.**  
**American Grain Fumigant Co.**  
**Minneapolis, Minn.**  
**California Spray-Chem. Corp.**  
**Berkeley, Cal.**  
**Douglas Chemical & Supply Co.**  
**Kansas City, Mo.**  
 (See Adv. on Page 143)  
**Electric Sprayit Co.**  
**South Bend, Ind.**  
**Gateway Chemical Co., Inc.**  
**Kansas City, Mo.**  
**Good, Inc., James**  
**Philadelphia, Pa.**  
 (See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
**New York, N. Y.**  
 (See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
**(Cleveland, Ohio)**  
 (See Adv. on Second Cover)  
**Hammond Paint & Chem. Co.**  
**Beacon, N. Y.**  
 (See Adv. on Page 143)  
**Innis, Spieden & Co. (Seed)**  
**New York, N. Y.**  
**Interstate Chem. Co.**  
**Jersey City, N. J.**  
**LeGear Medicine Co., Dr. L. D.**  
**St. Louis, Mo.**  
**Liquid Carbonic Co.**  
**Chicago, Ill.**  
**Merck & Co., Inc.**  
**Rahway, N. J.**  
**Nicotine Mfg. Co.**  
**Henderson, Ky.**  
**Tobacco By-Products & Chemical Corp.**  
**Louisville, Ky.**  
 (See Adv. on Pages 140-142-157-159)  
**Uniform Products Co.**  
**New York, N. Y.**  
**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
 (See Adv. on Page 145)

## FUNGICIDES

**Acme White Lead & Color Works**  
**Detroit, Mich.**  
 (See Adv. on Page 153)  
**American Agricultural Chemical Co.**  
**New York, N. Y.**  
**American Cyanamid & Chem. Co.**  
**New York City, N. Y.**  
**Ansbacher Siegle Corp.**  
**New York, N. Y.**  
**Ansul Chemical Co.**  
**Marinette, Wis.**  
**Aphine Mfg. Co.**  
**Madison, N. J.**

**Bayer-Semesan Co., Inc. (Disinfectants)**  
**Wilmington, Del.**  
**California Spray-Chem. Corp.**  
**Berkeley, Calif.**  
**Carbolineum Wood Preserving Co.**  
**Milwaukee, Wis.**  
**Chipman Chem. Co., Inc.**  
**Bound Brook, N. J.**  
**Electric Sprayit Co.**  
**South Bend, Ind.**  
**General Chemical Co.**  
**New York, N. Y.**  
**Good, Inc., James**  
**Philadelphia, Pa.**  
 (See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
**New York, N. Y.**  
 (See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
**Cleveland, Ohio**  
 (See Adv. on Second Cover)  
**Hammond Paint & Chemical Works**  
**Beacon, N. Y.**  
 (See Adv. on Page 143)  
**Interstate Chemical Co.**  
**Jersey City, N. J.**  
**Kiger Chemical Co. (Disinfectants)**  
**Bowling Green, Ohio**  
**Mallinckrodt Chem. Works**  
**St. Louis, Mo.**  
**Mechling Bros. Chemical Co.**  
**Camden, N. J.**  
 (See Adv. on Page 121)  
**Merck & Co., Inc.**  
**Rahway, N. J.**  
**Pratt Co., B. G.**  
**New York City, N. Y.**  
**Rex Research Corp.**  
**Toledo, Ohio**  
**Rohm & Haas Co., Inc.**  
**Philadelphia, Pa.**  
 (See Adv. on Page 145)  
**Rose Mfg. Co.**  
**Philadelphia, Pa.**  
**Sherwin-Williams Co.**  
**Cleveland, Ohio**  
**Stumpp & Walter Co.**  
**New York City, N. Y.**  
**Wilson, Inc., Andrew**  
**Springfield, N. J.**  
 (See Adv. on Page 145)

## INSECTICIDES—ANIMAL

**Antrol Laboratories**  
**Los Angeles, Calif.**  
**Burrell-Dugger**  
**Indianapolis, Ind.**  
**Carbola Chemical Co.**  
**Natural Bridge, N. Y.**  
**Carbolineum Wood Preserving Co.**  
**Milwaukee, Wis.**  
**C-A Wood Preserver Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 155)  
**Chipman Chem. Co., Inc.**  
**Bound Brook, N. J.**  
**Conkey Co., G. E.**  
**Cleveland, Ohio**  
**General Laboratories, Inc.**  
**Philadelphia, Pa.**  
**Germo Mfg. Co.**  
**St. Louis, Mo.**

**A garden is a lovely spot**

**If Harmful Insects are Controlled**

"Black Leaf 40" guards flowers, shrubbery, vegetables, and fruits against aphids and other insects. Its double killing action—by contact and by fumes gives it an extra advantage. Acts quickly—no waiting for results. Because it "fumes off" (evaporates) it is always safe—leaves no harmful residues.

The many uses for "Black Leaf 40" make it easy to sell—quick to repeat.

**TOBACCO BY-PRODUCTS & CHEMICAL CORPORATION, INCORPORATED** . . . **LOUISVILLE, KENTUCKY**



**"Black Leaf 40"**



# ANNIA GERM KILLS MOTHS BUGS WEEVIL WORMS

**Equally Effective on Bagged  
or Bulk Seeds**

*Ask for Our New Low  
Prices to Seed Trade*

**DOUGLAS CHEMICAL  
& SUPPLY COMPANY**

INCORPORATED 1916

825-827 South West Boulevard  
**KANSAS CITY, MO.**

Sole Manufacturers and Direct Distributors

**GET YOUR  
SHARE  
of  
MILLIONS OF  
DOLLARS  
SPENT IN THE  
SEED TRADE**

*by*

**12,500,000  
CONSUMER  
BUYERS**

*by*

**ADVERTISING IN  
SEED WORLD**

## Quick Sure Profits

FOR 60 Years, farmers, gardeners and florists have asked for HAMMOND Products. They are nationally advertised and attractively packaged. The profit margin is unusually generous. We offer 100% jobber and dealer protection, also sales cooperation that helps move merchandise.

### HAMMOND SALES LEADERS

*For Counter and Shelf*

#### SLUG SHOT The Safe Dust

A combination Insecticide and Fungicide used for more than 50 years for the control of Chewing Insects. *A sure selling item.*

#### LIQUID SLUG SHOT The Ultimate Plant Spray

Contains "Stabilized" Rotenone (patent applied for) and Pyrethrum, combined with effective fungicide.

#### GRAPE AND ROSE DUST The Perfect Fungicide

Prevents and controls Powdery Mildew and Black Spot on Roses, also other fungous diseases.

#### ANT GAS

**Sure Death to Ants**

A teaspoonful of Ant Gas poured on any ant hill kills all the ants immediately.

#### THRIP JUICE

**An Efficient Contact Spray**

A concentrated nicotine spray that goes farther, costs less, has higher percentage of kill and lasts longer than most nicotine combinations.

#### DOG SKAT Dog Repellent

A tube will keep dogs away from shrub, tree or flowers. Lasts an entire season.

#### PAINTS & PUTTIES for Greenhouse Use

A complete line, including "Old English" Liquid Putty, the original plastic.

*Get started right. Send for full details of our 1935 Sales Program.*

**HAMMOND'S**

**HAMMOND PAINT & CHEMICAL CO.**



*Estab. 1875*

50 Ferry St.,

Beacon, New York



**SPRAYERS AND SPRAY MATERIALS—Continued****Insecticides—Animal—Continued****Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Kalo Company**

Quincy, Ill.

(See Adv. on Page 135)

**LeGear Medicine Co., Dr. L. D.**

St. Louis, Mo.

**Mallinckrodt Chemical Works**

St. Louis, Mo.

**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**Merck & Co., Inc.**

Rahway, N. J.

**Rotenone Products Co., Inc.**

East Orange, N. J.

**Shepard Laboratories**

Council Bluffs, Iowa

**Tobacco By-Products & Chem. Corp., Inc.**

Louisville, Ky.

(Black Leaf 40)

(See Adv. on Pages 140-142-157-159)

**Wilson, Inc., Andrew**

Springfield, N. J.

(See Adv. on Page 145)

**INSECTICIDES—PLANT****Acme White Lead & Color Works**

Detroit, Mich.

(See Adv. on Page 153)

**American Color & Chemical Co.**

Boston, Mass.

**American Cyanamid & Chem. Co.**

New York City, N. Y.

**Ansbacher Siegle Corp.**

New York City, N. Y.

**Ansul Chemical Co.**

Marinette, Wis.

**Calif. Spray-Chemical Corp.**

Berkeley, Calif.

**Chipman Chemical Co., Inc.**

Bound Brook, N. J.

**Cooper & Nephews, Wm.**

Chicago, Ill.

**Douglas Chemical & Supply Co.**

Kansas City, Mo.

(See Adv. on Page 143)

**Dow Chemical Co.**

Midland, Mich.

**Electric Sprayit Co.**

South Bend, Ind.

**General Chemical Co.**

New York City, N. Y.

**Good, Inc., James**

Philadelphia, Pa.

(See Adv. on Page 147)

**Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Grasselli Chemical Co., The**

Cleveland, Ohio

(See Adv. on Second Cover)

**Half Moon Mfg. & Trading Co.**

New York, N. Y.

**Hammond Paint & Chemical Works**

Beacon, N. Y.

(See Adv. on Page 143)

**Hitox Products Corp.**

New York, N. Y.

(See Adv. below)

**Interstate Chemical Co.**

Jersey City, N. J.

**Kalo Company**

Quincy, Ill.

(See Adv. on Page 135)

**Kay-Fries Chemicals, Inc.**

New York, N. Y.

**Mallinckrodt Chemical Works**

St. Louis, Mo.

**McCormick & Co., Inc.**

Baltimore, Md.

(See Adv. on Page 145)

**McLaughlin, Gormley King Co.**

Minneapolis, Minn.

**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**Niagara Sprayer & Chemical Co., Inc.**

Middleport, N. Y.

**Penick & Co., S. B.**

New York, N. Y.

(See Adv. on Page 121)

**Reade, Inc., Morris B.**

Belleville, N. J.

**Rohm & Haas Co.**

Philadelphia, Pa.

(See Adv. on Page 145)

**Rose Mfg. Co.**

Philadelphia, Pa.

**Rotenone Products Co., Inc.**

East Orange, N. J.

**Shepard Laboratories**

Council Bluffs, Iowa

**Tanglefoot Company**

Grand Rapids, Mich.

**Tobacco By-Products & Chemical Corp.**

Inc. (Black Leaf 40)

Louisville, Ky.

(See Adv. on Pages 140-142-157-159)

**Wilson, Inc., Andrew**

Springfield, N. J.

(See Adv. on Page 145)

**MOTH KILLERS****Douglas Chemical & Supply Co.**

Kansas City, Mo.

(See Adv. on Page 143)

**Good, Inc., James**

Philadelphia, Pa.

(See Adv. on Page 147)

**Goulard & Olena, Inc.**

New York, N. Y.

(See Adv. on Page 145)

**Mallinckrodt Chemical Works**

St. Louis, Mo.

**Mechling Bros. Chemical Co.**

Camden, N. J.

(See Adv. on Page 121)

**PEST EXTERMINATORS**

(Rats, Etc.)

**Acme White Lead & Color Works (Ant)**

Detroit, Mich.

(See Adv. on Page 153)

**American Cyanamid & Chem. Co.**

New York City, N. Y.

**Bohlender Plant Chemicals, Inc.**

(Mole, Rat)

Tippecanoe City, Ohio

(See Adv. on Page 141)

**Carbolineum Wood Preserving Co.**

Milwaukee, Wis.

**HITOX**

The new insecticide that has become so popular in the seed trade is the most efficient and economical on the market. **HITOX** is packed in the following sizes: 1 ounce bottle, 35c; 1 pint can, \$1.75; 1 quart can, \$3.00; 1 gallon can, \$9.00. Write for dealer discounts and sample.

**HITOX PRODUCTS CORP.**

305 W. 26th St.

New York, N. Y.



# *Wilson's*

is the name that is recognized as representing the highest quality in Horticultural products. There are Wilson products for every season and purpose.

## **Wilson's O.K. PLANT SPRAY**

Powerful, yet safe, nicotine insecticide for garden and greenhouse use.

## **Wilson's SCALE-O**

Superior dormant spray for Ornamentals, Fruit and Shade Trees.

## **Wilson's WEED KILLER**

Clean, odorless, Super Strength solution for destroying undesirable plant growth.

*Literature and prices on request.*

# *Andrew Wilson*

SPRINGFIELD

NEW JERSEY



## **RED ARROW**

### **GARDEN SPRAY**

*points the way to PROFITS!*

- Because it is the preference of most home gardeners and highly profitable to you.
- Colorful window displays, counter cards, descriptive leaflets, spray charts and other "sales aids" are furnished free upon request.
- Why not concentrate your purchases of garden insecticides in Red Arrow? It will require less investment on your part and assure a more rapid turnover. Think it over!

**McCORMICK & COMPANY, INC.**  
BALTIMORE, MD.

BULK



PACKAGE

"The Best packed and priced line in America." Over 100 manufactured items comprising

HOUSEHOLD INSECTICIDES

GARDEN INSECTICIDES

DISINFECTANTS


DEODORANTS

FERTILIZERS

WEED KILLERS (Liquid—Dry)

SHEEP MANURE BONE MEAL

AND

THE FAMOUS  SPRAYER

We cooperate with THE SEED CATALOGUE TRADE.

**GOULARD & OLENA, INC.**

CHEMICAL MANUFACTURERS

140 LIBERTY ST.

NEW YORK, N.Y.

## **DEPENDABLE INSECTICIDES and FUNGICIDES**



**Cuprocide**—a specially prepared form of red copper oxide, widely recommended for use in seed treatment for prevention of damping-off.

**AAZ Special Zinc Oxide**—a new type of zinc oxide for use where this type of fungicide is recommended and preferred.

**Form-O-Fume**—a uniform formaldehyde dust.

**Lethane 420**—an unusually effective contact insecticide—kills mealy bug, red spider, midge, thrips, aphids, etc.

Full information and price lists on request.

*Manufactured by the*

**RÖHM & HAAS CO., Inc.**

222 West Washington Square  
Philadelphia • Pennsylvania



**SPRAYERS AND SPRAY MATERIALS—Continued****Pest Exterminators—Continued**

Carco Spray Co., Inc.  
Tacoma, Wash.  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
**Douglas Chemical & Supply Co.**  
Kansas City, Mo.  
(See Adv. on Page 143)  
General Laboratories, Inc.  
Philadelphia, Pa.  
Germo Mfg. Co.  
St. Louis, Mo.  
Felix Girard Co., Inc. (Rat)  
Minneapolis, Minn.  
**Good, Inc., Jas.**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 115)  
Green, E. A. (Mole)  
Beverly, N. J.  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)  
Jones Products Co. (Ant)  
Milwaukee, Wis.  
K-R-O Co., The  
Springfield, Ohio  
LeGear Medicine Co. Dr. L. D.  
St. Louis, Mo.  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
McAleer Co., E. J. (Beetle Traps)  
Philadelphia, Pa.  
McCloud & Co., W. B.  
Chicago, Ill.  
Merck & Co., Inc.  
Rahway, N. J.  
Moore Son's Co., B. J. (Rat Bombs)  
Waterville, N. Y.  
Pasteur Laboratories (Rat)  
New York, N. Y.  
Peerless Auto Trap Co.  
Chicago, Ill.  
Reardon Laboratories, Inc., W. G.  
Port Chester, N. Y.  
Rex Research Corp.  
Toledo, Ohio  
Senoret Chemical Co. (Ant)  
St. Louis, Mo.  
Soilicide Laboratories (Ant Traps)  
Upper Montclair, N. J.  
Tanglefoot Co., The  
Grand Rapids, Mich.  
V. & M. Products Co.  
Galesburg, Mich.  
Virus Limited, Inc.  
New York City, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)  
Zoro Company (Ant)  
Chicago, Ill.

**RODENT REPELLENTS**

Castle Chemical Co.  
Castle Rock, Minn.  
**Hammond Paint & Chem. Co.**  
Beacon, N. Y.  
(See Adv. on Page 143)

**SEED DISINFECTANTS**

Ansul Chemical Co.  
Marinette, Wis.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
Bowker Chemical Co.  
New York, N. Y.  
Castle Chemical Co.  
Castle Rock, Minn.  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
Kiger Chemical Co.  
Bowling Green, Ohio  
Mallinckrodt Chem. Works  
St. Louis, Mo.

Merck & Co., Inc.  
Rahway, N. J.  
**Rohm & Haas Co.**  
Philadelphia, Pa.  
(See Adv. on Page 145)

**SPRAYERS**

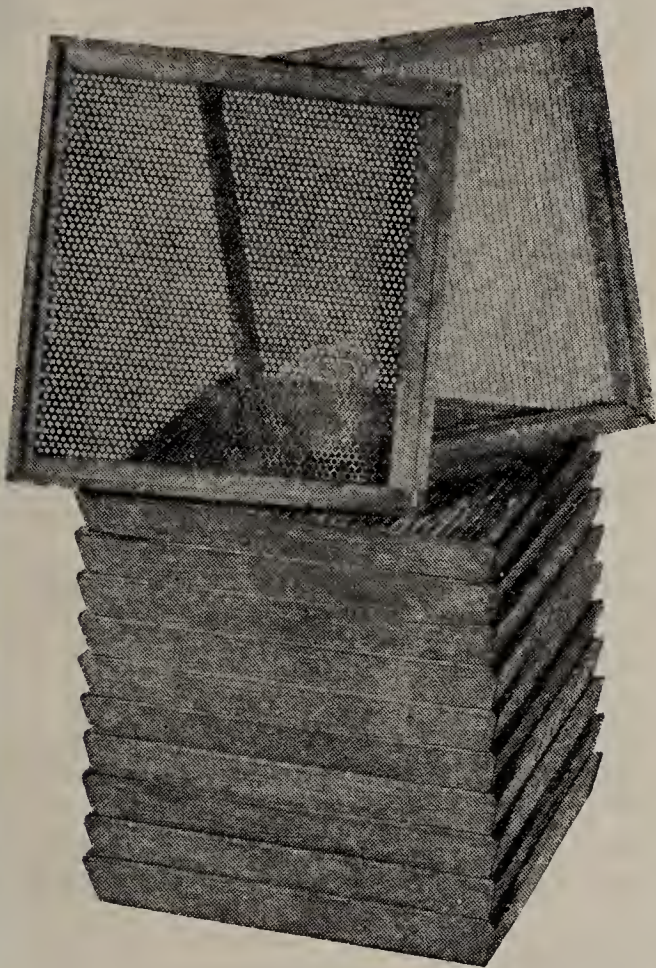
Acmeline Mfg. Co.  
Traverse City, Mich.  
Alliance Mfg. Co., The  
Alliance, Ohio  
Armstrong Electric & Mfg. Corp.  
Huntington, W. Va.  
Barnes Mfg. Co.  
Mansfield, Ohio  
Bean Spray Pump Co.  
Lansing, Mich.  
Brower Mfg. Co.  
Quincy, Ill.  
Brown Co., E. C.  
Rochester, N. Y.  
**Campbell-Hausfeld Co., The**  
Harrison, Ohio  
(See Adv. on Page 147)  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
Crown Mfg. Co.  
Phelps, N. Y.  
Deming Co.  
Salem, Ohio  
**Dobbins Mfg. Co.**  
North St. Paul, Minn.  
(See Adv. on Page 141)  
Electric Sprayit Co.  
South Bend, Ind.  
**Ellis-Keystone Agricultural Works**  
Pottstown, Pa.  
(See Adv. on Page 125)  
Eureka Mower Co.  
Utica, N. Y.  
Feeny Mfg. Co.  
Muncie, Ind.  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
Hamilton, W. L.  
Bangor, Mich.  
Hardie Mfg. Co.  
Hudson, Mich.  
Hayes Pump & Planter Co.  
Galva, Ill.  
**Hoelt & Co., Inc.**  
North Chicago, Ill.  
(See Adv. on Page 155)  
**Hudson Mfg. Co., H. D.**  
Chicago, Ill.  
(See Adv. on Page 119)  
Judd & Leland  
Clifton Springs, N. Y.  
Lirio, P. E.  
Vineland, N. J.  
Lowell Sprayer Co.  
Lowell, Mich.  
Myers & Bro. Co., The F. E.  
Ashland, Ohio  
Niagara Sprayer & Chemical Co., Inc.  
Middleport, N. Y.  
Peerless Dust Gun Co.  
Cleveland, Ohio  
Pugsley & Morrison  
Yuba City, Calif.  
Smith & Co., Inc., D. B.  
Utica, N. Y.  
**Wilson, Inc., Andrew**  
Springfield, N. J.  
(See Adv. on Page 145)

**WEED DESTROYERS**

Chicago Weed Killer Co.  
Chicago, Ill.  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
**Goulard & Olena, Inc.**  
New York, N. Y.  
(See Adv. on Page 145)  
**Grasselli Chemical Co., The**  
Cleveland, Ohio  
(See Adv. on Second Cover)



# Seed Sieves



For determining dockage the following can be used to advantage. Sieves are 8" x 8".

**TIMOTHY**  
1/25 zinc top  
6x32 wire mesh  
bottom.

**ALSIKE**  
1/20 zinc top.  
1/18 zinc top.  
26x26 wire mesh  
bottom.  
6x32 wire mesh  
bottom.

**RED CLOVER**  
1/15 zinc top.  
6x24 wire mesh.  
4x24 wire mesh.

**ALFALFA**  
1/15 zinc top.  
1/19 zinc top.  
4x26 wire mesh.

**SWEET CLOVER**  
7/64 zinc top for rough  
dockage.  
1/15 zinc top for re-  
moving unhulled  
seed.  
1/16 zinc top to re-  
move unhulled seed.  
4x24 wire mesh bottom  
for common sweet.  
4x26 wire mesh bottom  
for dwarf sweet.

## Don't Buy DIRT!

It is not necessary to buy weed seeds and inert matter when you have a set of our seed dockage sieves. You can determine for yourself the percentage of pure seed.

We can furnish an accurate set of sieves for each variety of field seed.

*Write for prices*

**SEED TRADE  
REPORTING BUREAU**  
325 W. Huron St. Chicago

*ALERT SEEDSMEN find these items quick  
repeaters with nice profits*

# WEEDEX

The SCIENTIFIC  
CHEMICAL  
WEED-KILLER

JUST SPRINKLE LIQUID, KILLS WEEDS  
CHEAPLY

Packed in qt. and gal. cans.  
5-10-30 and 50 gal. drums.

## KEYSTONE FISH-OIL SPRAY-SOAPS

Three widely used, old favorites with  
successful gardeners and growers

"No. 1"—SODA SOAP, sometimes called Whale-oil soap, for Aphis, Thrip & Scale on porch and garden plants.

"No. 3"—POTASH SOAP, quickly soluble in cold water. Most effective spreader and liberator for Nicotine sprays.

"No. 9"—ROSIN SOAP, quickly soluble, positive sticker and spreader for Bordeaux sprays on grape, plums, tomatoes and all smooth skin fruit. Saves usual heavy "run-off" waste and increases killing power.

Packed in 1, 5 and 10 lb. tins, 25, 50, 100, 250 lb. and 450 lb. drums.

Descriptive Folders and Catalog Cuts Sent on Request.

## JAMES GOOD, INC.

2200 Martha Street Philadelphia, U. S. A.



## Consumer Advertising

*is creating a large demand*

FOR

## PARAGON SPRAYERS

*"Guaranteed Never to Clog"*

Tie up to this campaign. Stock the Paragon Line and get your share of the high grade sprayer business. Paragon prices are right. Dealer discounts are liberal.

*Write for Catalog and Price List*

**The CAMPBELL-HAUSFELD CO.**  
HARRISON OHIO



## SPRAYERS AND SPRAY MATERIALS—Concluded

## Weed Destroyers—Continued

Hammond Paint & Chemical Works  
Beacon, N. Y.

(See Adv. on Page 143)

Interstate Chem. Co.  
Jersey City, N. J.

Reade Mfg. Co.

Jersey City, N. J.

Root Mfg. Co.

Cleveland, Ohio

Wilson, Inc., Andrew

Springfield, N. J.

(See Adv. on Page 145)

## PETS AND PET SUPPLIES

## BIRDS

Bishop, Inc., Henry  
Baltimore, Md.  
H. J. Fletcher Co.  
Philadelphia, Pa.  
Flower's Tropical Bird Farms  
Van Nuys, Cal.  
Haller's Pet Shop  
St. Louis, Mo.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
Nollen & Son, H. A.  
Dubois, Pa.  
Odenwald Bird Co.  
New York, N. Y.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Robison, Ansel W.  
San Francisco, Cal.  
Southern's Bird Farm  
Clifton Hill, Mo.  
"Steins" Canary Plant  
Philadelphia, Pa.  
Vahle, E. C.  
Chicago, Ill.

## BIRD BATHS

Brush Pottery Co.  
Zanesville, Ohio  
Louisville Pottery Co., Inc.  
Louisville, Ky.  
Silvertone Co.  
New York, N. Y.  
Smith Wire & Iron Works, F. P.  
Chicago, Ill.  
Western Stoneware Co.  
Monmouth, Ill.  
Zane Pottery Co.  
South Zanesville, Ohio

## BIRD CAGES

Bishop, Inc., Henry  
Baltimore, Md.  
Friedlaener, Paul N.  
New York, N. Y.  
Hendryx Co., Andrew C.  
New Haven, Conn.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
Nollen & Son, H. A.  
Dubois, Pa.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Raedlein Basket Co.  
Chicago, Ill.  
Silvertone Co.  
New York, N. Y.  
"Steins" Canary Plant  
Philadelphia, Pa.  
Vahle, E. C.  
Chicago, Ill.

## BIRD CAGE STANDS—METAL

Bishop, Inc., Henry  
Baltimore, Md.  
Hendryx Co., Andrew B.  
New Haven, Conn.  
Mussog's Bird Store  
Philadelphia, Pa.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Schoemann & Mayer, Inc.  
New York City, N. Y.

Vahle, E. C.

Chicago, Ill.

## BIRD HOUSES

Batcheller Associates, Fred E.  
Salem, Mass.  
Bishop, Inc., Henry  
Baltimore, Md.  
Bishop, Welles L.  
Meriden, Conn.  
Dodson, Inc., Jos. H.  
Kankakee, Ill.  
Express Body Corp.  
Crystal Lake, Ill.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
National Pet Shops  
St. Louis, Mo.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Rieber Bird Homes  
West Webster, N. Y.  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa  
Schaad & Son, E. J.  
Merrill, Wis.  
Western Stoneware Co.  
Monmouth, Ill.  
Woodcraft Co., The  
Dalton, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## BIRD SEED AND SUPPLIES

American Bird Products Co.  
Chicago, Ill.  
Battle Creek Dog Food Co.  
Battle Creek, Mich.  
(See Adv. on Page 149)  
Bishop, Inc., Henry  
Baltimore, Md.  
Blumberg Bros., Inc.  
Baltimore, Md.  
(See Adv. on Page 23)  
Dickinson Co., Albert  
Chicago, Ill.  
(See Adv. on Page 132)  
Duryea Seed Co., Inc.  
New York, N. Y.  
(See Adv. on Page 63)  
Exner Sand & Gravel Co.  
New York, N. Y.  
Franks Bird Store, Inc. (Song Restorer)  
New York, N. Y.  
Haller's Pet Shop  
St. Louis, Mo.  
Heger Products Co.  
St. Paul, Minn.  
Hinton & Co., Inc.  
New York, N. Y.  
Horton Co., F. T.  
Hoboken, N. J.  
Johnson, Inc., J. Oliver  
Chicago, Ill.  
Justrite Co., The  
Milwaukee, Wis.  
Magnesia Products Co.  
Milwaukee, Wis.  
Mangelsdorf & Bro., Ed. F.  
St. Louis, Mo.  
(See Adv. on Page 13)  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
Nature Friend, The  
New York, N. Y.  
Nollen & Son, H. A.  
Dubois, Pa.





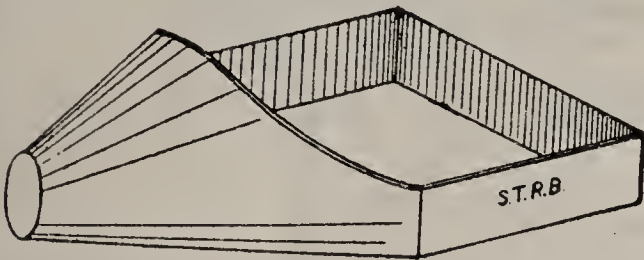
## GOLDFISH • TROPICAL FISH WATER LILIES

AQUATIC PLANTS — SCAVENGERS — FISH FOODS  
AQUARIUM ACCESSORIES

*"PACIFIC" Products Are Your Protection. Write for Catalog*

**PACIFIC GOLDFISH FARM**

Largest Breeders and Distributors of Fancy Goldfish in Western America  
P. O. BOX 57, DEPT. S WESTMINSTER, CALIF.



### SEED AND GRAIN SAMPLE PANS

For containing grain or seed after sampling. Advantageous in making analyses and for display. Seamless Wellsville steel—dark blue and non-glaring.

No. 31—12x16x2 in.—3 qts. wheat capacity. Price each, \$1.50; half dozen, \$8.50. Aluminum, same price.

No. 32—8½x12x1½ in.—1½ qts. wheat capacity. Price each, \$1.25; half dozen, \$7.00.

**SEED TRADE REPORTING  
BUREAU**

325 W. Huron Street  
CHICAGO, ILL.



### Year Around Profit Line

Seed dealers need a fill in line for off season months. Miller's high profit "Battle Creek Health Foods for Pets" are steady money makers. Complete samples of Dog, Bird, and Fish Foods will be sent on request.

*Inquire about our dealer plan.*

**BATTLE CREEK DOG FOOD  
COMPANY**

BATTLE CREEK - - MICHIGAN

# READ SEED WORLD

*News and Advertising*

for all the latest developments in the Seed Trade Field



**PETS AND PET SUPPLIES—Concluded****Bird Seed and Supplies—Continued**

Peerless Mfg. Co.  
Detroit, Mich.  
Pet Foods Co. of America  
New York, N. Y.  
Philadelphia Bird Food Co.  
Philadelphia, Pa.  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
**Radway-McCullough Seeds, Inc. (Bird Seed)**  
New York City, N. Y.  
(See Adv. on Page 63)  
**Scarlett & Co., Wm. G.**  
Baltimore, Md.  
(See Adv. on Page 40)  
Southern's Bird Farm  
Clifton Hill, Mo.  
Spratt's Patent, Ltd.  
Newark, N. J.  
**Tibor, Kemeny**  
Budapest, Hungary  
(See Adv. on Page 69)  
Von Damm, F. H.—Bird Food  
Brooklyn, N. Y.

**DOG FOODS AND SUPPLIES**

**Battle Creek Dog Food Co.**  
Battle Creek, Mich.  
(See Adv. on Page 149)  
Beck Bros. (Dog Collars, etc.)  
Herrick, Ill.  
Brown Co., Geo. C.  
Memphis, Tenn.  
Champion Animal Food Co.  
Minneapolis, Minn.  
Chappell Bros., Inc.  
Rockford, Ill.  
Glover Co., Inc., H. Clay  
New York, N. Y.  
**Good, Inc., James**  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Heger Products Co.  
St. Paul, Minn.  
Imperial Biscuit Co.  
Sackets Harbor, N. Y.  
Justrite Co.  
Milwaukee, Wis.  
Kennel Food Supply Co.  
Fairfield, Conn.  
Le Gear Medicine Co., Dr. L. D. (Remedies)  
St. Louis, Mo.  
National Pet Shops  
St. Louis, Mo.  
Nowak Milling Co.  
Hammond, Ind.  
Old Trusty Dog Food Co.  
Needham Heights, Mass.  
Perfection Foods Co.  
Battle Creek, Mich.  
**Philadelphia Seed Co.**  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.

Richmond, Abattoir  
Richmond, Va.  
Rose & Co., G. P.  
Nashville, Tenn.  
Scott Co., I. W.  
Pittsburgh, Pa.  
Simpson Products Co.  
Terre Haute, Ind.  
Spratt's Patent, Ltd.  
Newark, N. J.  
Wapler Co., Nicholas  
New York, N. Y.

**DOG REPELLENTS**

(See Page 140)

**GOLD FISH AND SUPPLIES**

American Bird Products Co.  
Chicago, Ill.  
Ashbourne Goldfish & Supply Co.  
Burlington, Iowa  
**Auburndale Goldfish Co.**  
Chicago, Ill.  
(See Adv. below)  
**Battle Creek Dog Food Co.**  
Battle Creek, Mich.  
(See Adv. on Page 149)  
Bruce Goldfish Fisheries  
Thornburg, Iowa  
Crescent Fish Farm  
New Orleans, La.  
Grassyfork Fisheries, Inc. (Shubunkins)  
Martinsville, Ind.  
Gray, Roger P. (Tropical Fish)  
Ojus, Fla.  
Japanese Goldfish Hatchery Co.  
North Branch, N. J.  
Justrite Co., The  
Milwaukee, Wis.  
Lakeview Ponds, The  
Mt. Airy, Cincinnati, Ohio  
Loveland Goldfish Farms  
Loveland, Ohio  
Mt. Parnell Fisheries  
Mercersburg, Pa.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
**Pacific Goldfish Farm**  
Westminster, Cal.  
(See Adv. on Page 149)  
Percy Goldfish Co.  
Martinsville, Ind.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Spratt's Patent, Ltd. (Supplies)  
Newark, N. J.  
Spring Lake Fishery  
Waldron, Ind.  
Tamms Silica Co. (Pebbles)  
Chicago, Ill.  
Wapler Co., Nicholas  
New York, N. Y.  
Wells Glass Co. (Colored Glass Chips)  
Kokomo, Ind.  
Woodford Water Gardens  
Van Nuys, Calif.



SEND FOR  
WHOLESALE CATALOG

1449 W. MADISON ST.

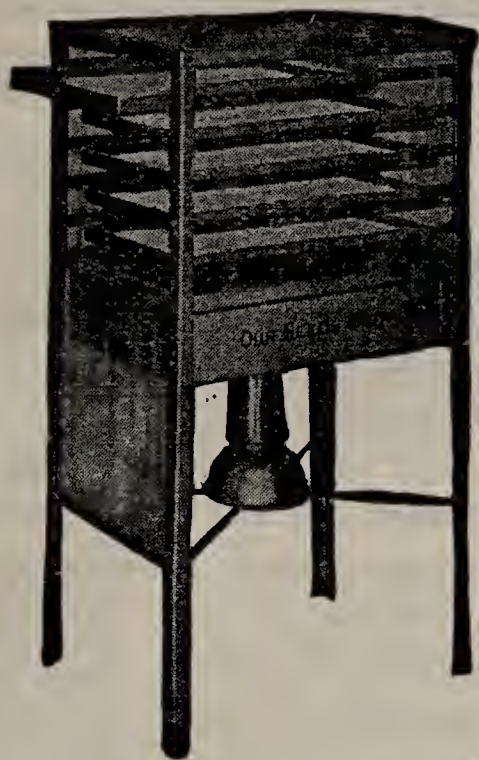
CHICAGO, ILL.

TELEPHONE HAYMARKET 0152

**GOLDFISH**  
BABY TURTLES, LILIES  
AQUATIC PLANTS, SCAVENGERS  
AND ACCESSORIES  
Jobbers of  
**AQUARIUMS & SUPPLIES**  
**AUBURNDALE GOLDFISH CO.**



# Seed Testing Equipment



## Sho-Gro Germinators

are Rapid—Reliable—Reasonable. Durable made with glass sides—it is efficient, accurate and makes an attractive display of sprouting seeds that will interest your customers. Blot- ters are kept moist by evaporation. Has 5 trays 10 x 15 in. Electric or lamp heat. Price with oil heat, \$22.00. Electric (100 or 220 volts), \$28.00. Shipping weight, 95 lbs.

## The New Improved Boerner Seed Sampler

Demonstrations have proved that in order to reduce the size of a representative sample so that a careful analysis may be made some mechanical method must be employed to get accurate results. Several important changes were made to add to the usefulness of this sampler.

Around the base of the cone are 44 pockets or openings. The seed falling down the sides of the cone is cut into 44 separate streams, alternating into two streams. The top is removable for cleaning and inspection. The entire bottom section is removable to facilitate cleaning if necessary. The sample pans are more satisfactory and easier to use. The many new improvements add great efficiency to this sampler. Sticking of seeds is entirely eliminated. This new type used by the New York State Seed Testing Laboratory at Geneva and recommended by the Association of Official Seed Analysts of North America. Made of brass and copper with dull nickel finish. Height 15 $\frac{3}{8}$  inches. Diameter at dividing base 6 inches. Net weight 5 lbs. Shipping weight 18 lbs. Price \$37.50 F.O.B. Chicago

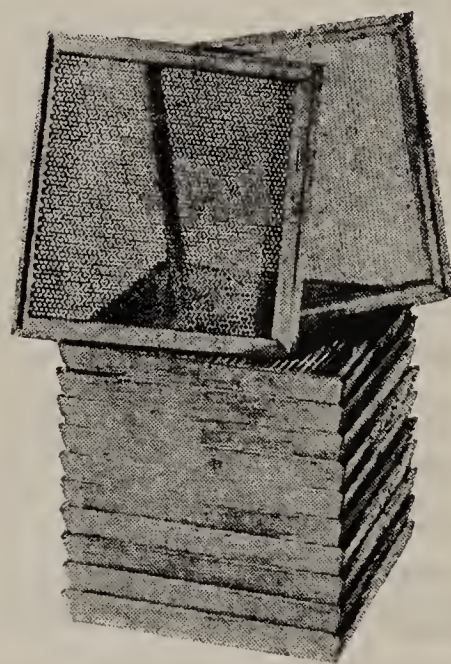


5055

## Torsion Scale No. 5055

A fine balance for delicate weighing and the analysis of seed and grain. Capacity 120 grams, sensitiveness 2 milligrams. Rider beam 1 gram by .01 gram or if specified, 500 milligrams by 5 milligrams. Size 13 x 8 $\frac{1}{4}$  x 6 $\frac{1}{2}$  inches. Brass weighs in mahogany case 2-20 grams to 1 gram. Price, \$81.00.

## Seed Dockage Sieves



## For CLOVERS, TIMOTHY and other SEEDS of SIMILAR SIZES

These sieves are correctly made in every particular. The size of the perforations—the accuracy of the construction—the strength—material and workmanship are SEEDBURO quality throughout.

The complete set consists of 12 sieves and solid bottom pan, as follows:

Seven of the sieves have zinc bottoms, with round perforations in size—1/25, 1/20, 1/18, 1/15, 1/19, 7/64, 1/16. Five have woven wire mesh in sizes—6/32, 26/26, 6/24, 4/24, 4/26.

Price, \$9.00 for complete set.

Write for full descriptive matter on all seed testing equipment

SEED TRADE REPORTING BUREAU 325 W. Huron Street CHICAGO, ILL.



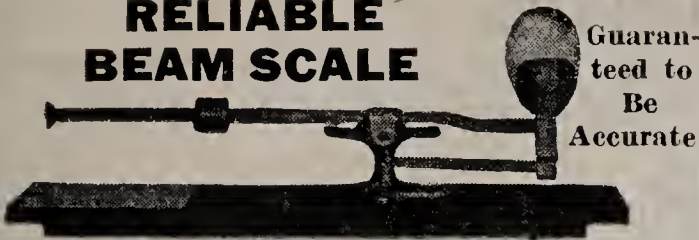
# POULTRY SECTION

## ITEMS ESSENTIAL TO A COMPLETE POULTRY SUPPLY LINE

- |  |  |
|--|--|
| Animal Insecticides  | Glass Substitutes (to admit ultra-violet rays of sun)        |
| Animal Poultry Yeast   | Grit Hoppers   |
| Automatic Time Switches  | Grit (fine, medium, coarse; hard, sharp, cubical in shape)   |
| Batteries (Broilers and Poultry Fattening)                               | Heat Regulators  |
| Brood Coops (Metal and Wood)   | Incubators (50 to 500 egg size, electric hot water, hot air) |
| Brooder House Plans  | Leg Bands (Chick, growing stock and hen size)                |
| Brooder Stoves (Coal and Oil Burning)                                    | Lice Killers   |
| Brooders (Oil and Electric Heated)                                       | Meat Scraps  |
| Brooders (Feather)   | Mite Killers   |
| Brooders (Storage)   | Nest Eggs  |
| Burglar Alarms   | Nests (metal and trap)                                       |
| Buttermilk (Semi-Solid)  | Oats Sprouters   |
| Buttermilk (Dried)   | Oyster Shell (Reef Brand)                                    |
| Caponizing Sets  | Oyster Shell Hopper  |
| Charcoal   | Peat Moss (Poultry House Litter)                             |
| Cod Liver Oil  | Poultry Books  |
| Coops  | Poultry Feeds (Chick, growing stock, laying hens)            |
| Chick Boxes  | Pullets, 12, 16 and 18 weeks old                             |
| Crates   | Poultry House Plans  |
| Disinfectants  | Poultry Punches (web and toe)                                |
| Drinking Fountains (Metal and Earthenware, heated, unheated, Thermostat) | Poultry Remedies   |
| Dry Milk   | Pedigree Egg Baskets   |
| Egg Carriers   | Rat and Mice Killers   |
| Eggs for Hatching  | Root, Vegetable, Bone and Clover Cutters                     |
| Egg Cartons  | Roosts—Vermin Proof  |
| Egg Grading Scales   | Sprayers (Hand and Power)                                    |
| Egg Preservatives  | Scrapers for Dropping Boards                                 |
| Egg Scales   | Toe Pick Preventers  |
| Egg Testers  | Vaccines   |
| Electric Fountain Heaters  | Ventilators  |
| Feeders and Mash Hoppers (metal and wood)                                | Wafers, Thermostat   |
| Fencing, Poultry Wire (small and large mesh)                             | Wing Tags  |

For Sources of Supply on these or other items not listed, Consult our **POULTRY SERVICE DEPARTMENT** which supplies information and advice without charge.

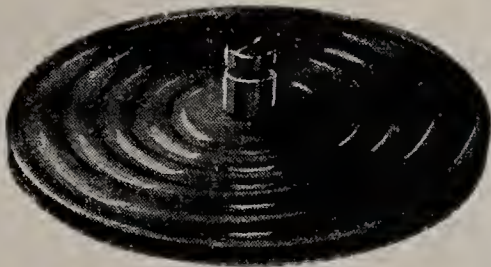


**RELIABLE  
BEAM SCALE**

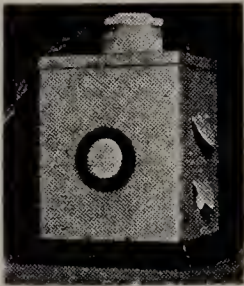
Guaran-  
teed to  
Be  
Accurate

Grades All Eggs Weighing 16 to 32  
Ounces to the Dozen. Price \$1.50

Reliable  
Double  
Wafer  
Thermo-  
stat Made  
in 2, 3, 4,  
and 5  
Inch Sizes



Give Name of Incubator and Brooder  
When Ordering

**RELIABLE REFLECTO  
EGG CANDLER**

Electrically Operated  
Standard Voltage 110

Can Also Furnish for 32 or  
220 Voltage

Can Be Attached to Light  
Socket

Complete with Bulb, Cord  
and Sockets (110 V.),  
\$1.30

Write for Our Catalog and Discounts

**RELIABLE INCUBATOR & BROODER CO.,**  
BOX 60, QUINCY, ILLINOIS

**DON'T GUESS**

**on those incoming  
samples. Use a  
Magnifying Glass**



Desk Size

The Magnifying  
Glasses illustrated here-  
with are especially  
adaptable for quick  
and efficient use in the  
examination of seeds.

The Desk Glass is of  
solid brass, the focus  
adjustment being made  
by screw threads. The  
lens is of correct power  
for close examination  
of seeds. Diameter of  
lens, 1 inch.



Pocket Size

The Pocket  
Glass is a very  
handy instru-  
ment, folding  
neatly in a  
hard rubber case. Diameter of lens, 1½ inches.

The case protects the lens from scratching and  
could be dropped on stone floor without breaking.

No. 44—Pocket Size .....\$1.50  
No. 45—Desk size with legs..... 1.50

**SEED TRADE REPORTING  
BUREAU**

325 W. Huron St. • Chicago, Illinois

**ACME  
NICOTINE  
POULTRY  
DELOUSER**

... spreads farther ... costs less  
... lasts longer



**—and pays you a better  
profit on every sale**

Lice and mites leave town in a hurry when the new Acme Nicotine Poultry Delouser enters the henhouse. A special patented formula slows down the fuming of the delouser, thereby keeping it active and effective much longer than with an ordinary volatile liquid that evaporates quickly.

No wonder that Acme Delouser sells on sight! It stays effective longer, costs less to apply, and kills just as surely. Also can be used as an excellent contact spray against aphids on flowers and vegetables. Harmless to vegetation and leaves no odor.

Attractively packed in 2 oz. handy collapsible tubes, and in pint, quart and gallon containers. Tubes retail for 35c, larger cans proportionately. Mail coupon for full information to

**Acme White Lead & Color Works**

**Insecticide Division**

**Detroit, Michigan**

Acme White Lead & Color Works

Insecticide Division

8290 St. Aubin Ave.

Detroit, Mich.

Gentlemen:

Please send us full information and dealer discounts on your Nicotine Poultry Delouser.

Name.....

Address.....

City.....State.....



## POULTRY SUPPLIES

### BABY CHICKS

Ada Baby Chick Hatchery  
Ada, Ohio  
Atz Blue Mound Hatchery Co.  
Milltown, Ind.  
Barr & Son, P.  
Zeeland, Mich.  
Berry's Poultry Farm  
Clarinda, Iowa  
Capital Poultry Farm & Hatchery  
Columbia, S. C.  
Clover Valley Poultry Farm & Hatchery  
Ramsey, Ind.  
Davis Poultry Farm  
Ramsey, Ind.  
Hoosier Chick Hatchery  
Indianapolis, Ind.  
Illinois Hatchery  
Metropolis, Ill.  
Johnson Hatchery. Alf.  
Leonardville, Kan.  
Lakeview Poultry Farm  
Holland, Mich.  
Maplewood Hatchery  
Lanesville, Ind.  
Marion Hatcherles  
Marion, Ohio  
Meadow View Hatchery  
St. Peter, Minn.  
Miller Hatcherles, Inc.  
Lancaster, Mo.  
Moweaqua Seed Co. Hatchery  
Moweaqua, Ill.  
Reinhart's Hatchery  
New Salisbury, Ind.  
Rural Poultry Farm  
Zeeland, Mich.  
Russell Hatchery  
Corvallis, Ore.  
Smith Chickerles  
Mexico, Mo.  
Sterling Hatchery  
Ramsey, Ind.  
Sunshine Hatcherles  
Corydon, Ind.  
Triple "C" Hatcheries  
Centerville, Iowa  
Van Wert Hatchery  
Van Wert, Ohio.

### BABY CHICK BOXES

Anderson Box Co.  
Indianapolis, Ind.  
Illinois Supply Co.  
Aurora, Ill.  
Keipper Cooping Co.  
Milwaukee, Wis.

### BROODERS

(Coal, Oil Burning, Feather, Gas and Electric)

Anderson Box Co.  
Indianapolis, Ind.  
Brower Mfg. Co.  
Quincy, Ill.  
Buckeye Incubator Co.  
Springfield, Ohio  
General Metalware Corp.  
Minneapolis, Minn.  
Hoeft & Co.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Illinois Supply Co.  
Aurora, Ill.  
James Mfg. Co.  
Fort Atkinson, Wis.  
Oakes Mfg. Co.  
Tipton, Ind.  
Phelan Brooder Co.  
Oklahoma City, Okla.  
Poorman, John G. (Feather)  
Tinley Park, Ill.  
Putnam, Inc., I.  
Elmira, N. Y.

Reliable Incubator & Brooder Co.  
Quincy, Ill.

(See Adv. on Page 153)

Sheer Co., H. M.  
Quincy, Ill.  
Simplex Brooder Stove Co.  
Grand Rapids, Mich.  
Trumbull Electric Mfg. Co.  
Plainville, Conn.

### BROODERS—STORAGE

Ball-Biddle Co.  
Riverton, N. J.  
Anderson Box Co.  
Indianapolis, Ind.  
Buckeye Incubator Co.  
Springfield, Ohio  
Oakes Mfg. Co.  
Tipton, Ind.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.

(See Adv. on Page 153)

### CARBOLINEUM

(See Creosote Products)

### CHARCOAL

Chesmore Seed Co.  
St. Joseph, Mo.  
Gulf City Mfg. Co.  
Mobile, Ala.  
Tennessee Eastman Corp.  
Kingsport, Tenn.  
Wittig Co., F.  
Milwaukee, Wis.

### CHICKEN MITE KILLER

C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.  
Electric Sprayit Co.  
South Bend, Ind.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)

### CONCENTRATED COD LIVER OIL

Health Products Co.  
Newark, N. J.  
National Oil Products Co.  
Harrison, N. J.

### CREOSOTE PRODUCTS

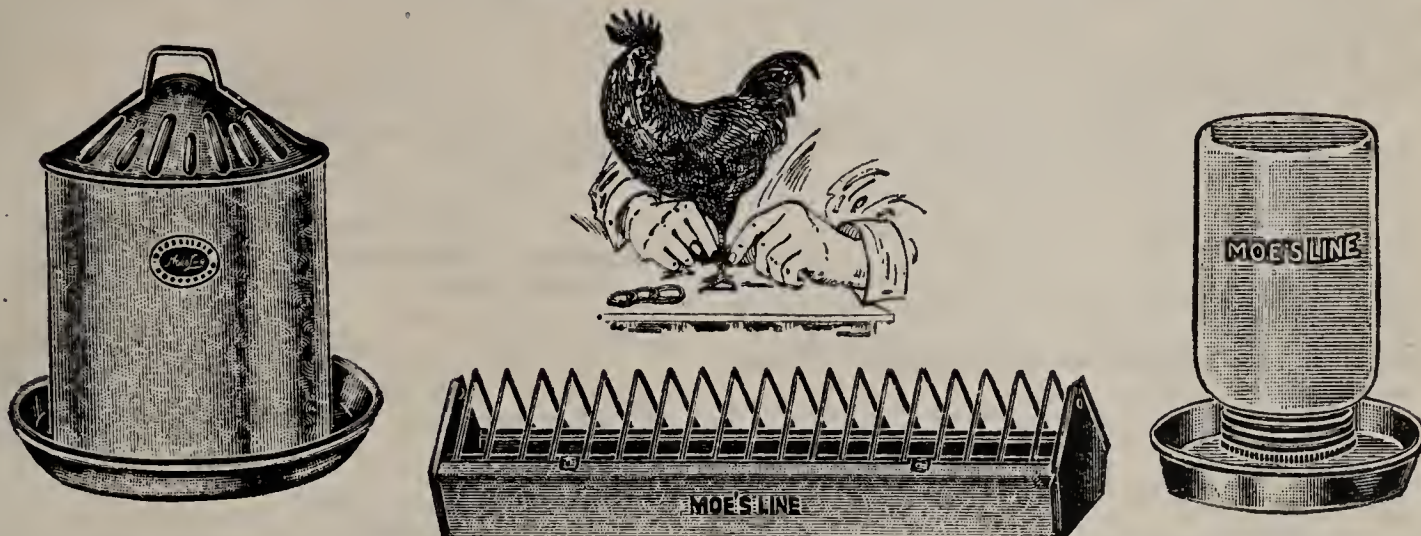
C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.

### DISINFECTANTS

Aeroil Burner Co.  
West New York, N. J.  
Ansul Chemical Co.  
Marinette, Wis.  
Carbola Chemical Co.  
Natural Bridge, N. Y.  
C-A Wood Preserver Co.  
St. Louis, Mo.  
(See Adv. on Page 155)  
Chipman Chem. Co., Inc.  
Bound Brook, N. J.  
Conkey Co., G. E.  
Cleveland, Ohio  
Duggar Mfg. Co., L. G.  
Hope Hull, Ala.  
Electric Sprayit Co.  
South Bend, Ind.  
General Laboratories, Inc.  
Philadelphia, Pa.  
Good, Inc., James  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Grasselli Chemical Co.  
Cleveland, Ohio  
(See Adv. on Second Cover.)



# POULTRY SUPPLIES



**Moe's Line**—Always a symbol of *Excellence* and *Value* in Poultry Equipment.

A big complete line of Feeders, Waterers, etc. Everything needed, and the success of the many Seed Dealers now selling *Moe's Line* is proof of its superior quality and national popularity. Write for Catalog and Prices.

**HOEFT & COMPANY**  
INCORPORATED

2311 Davis Street

::

North Chicago, Ill.

## KILL 'EM



CHICKEN MITE



BLUE BUG  
(Fowl Tick)



TERMITE



"Uncle Sam" cannot spray your poultry houses, yet he has recommended what to use. U. S. Farm Bulletins 801 and 1070 show that pure honest ANTHRACENE OIL Carbolineum outlasts any other product when used to kill mites and blue bugs. Most State Experiment Stations also recommend it.

We have sold it for 48 years. Ours is the only one in the world guaranteed by affidavit to be like that recommended by the Government. It is not adulterated. LASTS FROM 1 TO 3 YEARS. Kills termites; also stops the rot of wood. Write us for prices and samples.

C-A WOOD PRESERVER CO.,

6624 Delmar Blvd.,

ST. LOUIS, MISSOURI

## MORE THAN 12,500,000 BUYERS

of seeds, plants, bulbs, nursery stock, pets and pet supplies, poultry supplies and various accessories, are patrons of SEED WORLD readers.



## POULTRY SUPPLIES—Continued

## Disinfectants—Continued

LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
Nicotine Mfg. Co.  
Henderson, Ky.  
Rohm & Haas Co., Inc.  
Philadelphia, Pa.  
(See Adv. on Page 145)  
Shepard Laboratories  
Council Bluffs, Iowa  
Sherwin-Williams  
Cleveland, Ohio  
Smith & Co., D. B.  
Utica, N. Y.  
Sterilac Co., The  
North Chicago, Ill.  
Tobacco By-Products and Chemical Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

## DRINKING FOUNTAINS

Anderson Box Co.  
Indianapolis, Ind.  
Baier Bros. Mfg. Co.  
Cissna Park, Ill.  
Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co., The  
Urbana, Ind.  
Felker, C. H.  
Boston, Mass.  
Hall Mfg. Co.  
Cedar Rapids, Iowa  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
Illinois Supply Co.  
Aurora, Ill.  
James Mfg. Co.  
Ft. Atkinson, Wis.  
Mit-Shel Stamping Mfg. Co.  
Quincy, Ill.  
National Poultry Band Co.  
Newport, Ky.  
Oakes Mfg. Co.  
Tipton, Ind.  
Phelan Brooder Co.  
Oklahoma City, Okla.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)  
Sheer Co., H. M.  
Quincy, Ill.  
Simplex Brooder Stove Co.  
Grand Rapids, Mich.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
(See Adv. on Page 139)

## EGG CARTONS

Egg Safety Carton Co.  
Chicago, Ill.  
Hoeft & Co.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Illinois Supply Co.  
Aurora, Ill.  
Metal Egg Crate Co.  
Fredericksburg, Va.  
Safe-Service Egg Case Co.  
Three Rivers, Mich.  
Self Locking Carton Co.  
Chicago, Ill.  
Standard Trunk Mfg. Co. (Fibre)  
New York, N. Y.  
Surety Egg Box Co.  
Hohokus, N. J.

## EGG PRESERVATIVES

California Egg Preserver Co.  
San Francisco, Calif.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Mechling Bros. Chemical Co.  
Camden, N. J.  
(See Adv. on Page 121)

## EGG SCALES

Brower Mfg. Co.  
Quincy, Ill.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)  
Specialty Mfg. Co.  
St. Paul, Minn.

## EGG TESTERS

Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## FEED—POULTRY

Ackerman Company  
Lima, Ohio  
(See Adv. on Page 27)  
Allied Mills  
Chicago, Ill.  
American Dry Milk Institute  
Chicago, Ill.  
Badenoch Co., J. J.  
Chicago, Ill.  
Blamberg Bros., Inc.  
Baltimore, Md.  
(See Adv. on Page 23)  
Chapin & Co.  
Hammond, Ind.  
Conkey Co., G. E.  
Cleveland, Ohio  
Darling & Co.  
Chicago, Ill.  
Dickinson Co., The Albert  
Chicago, Ill.  
(See Adv. on Page 132)  
Goldberg Seed & Feed Co.  
Fargo, N. D.  
Happy Feed Mills, Inc.  
Memphis, Tenn.  
Health Products Corp. (Clo-Trate)  
Newark, N. J.  
Hoeft & Co.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Kalo Co. (Mineral Feeds)  
Quincy, Ill.  
(See Adv. on Page 135)  
Krause Milling Co.  
Milwaukee, Wis.  
Marden-Wild Corp. (Cod Liver Oil)  
Somerville, Mass.  
Mead, Johnson & Co.  
Evansville, Ind.  
Minneapolis Seed Co.  
Minneapolis, Minn.  
(See Adv. on Page 61)  
National Oil Products Co. (Cod Liver Oil)  
Harrison, N. J.  
Northrup, King & Co.  
Minneapolis, Minn.  
(See Adv. on Page 5)  
Northwestern Yeast Co. (Yeast)  
Chicago, Ill.  
Nowak Milling Co.  
Hammond, Ind.  
Ouren Seed Co.  
Council Bluffs, Iowa  
(See Adv. on Page 59)  
Philadelphia Seed Co.  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Pratt Food Co.  
Philadelphia, Pa.  
Radway-McCullough Seeds, Inc.  
New York City, N. Y.  
(See Adv. on Page 63)  
Ralston Purina Co.  
St. Louis, Mo.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
(See Adv. on Page 40)  
Ubiko Milling Co.  
Cincinnati, Ohio  
Vitality Mills  
Chicago, Ill.  
Wells Milling Co., A. G.  
Depere, Wis.  
Wilson & Co., Inc.  
Chicago, Ill.  
Wood & Sons, T. W.  
Richmond, Va.



## POULTRY SUPPLIES—Continued

## FEED HOPPERS

Anderson Box Co.  
Indianapolis, Ind.  
Cyclone Mfg. Co., The  
Urbana, Ind.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
(See Adv. on Page 119)  
James Mfg. Co.  
Ft. Atkinson, Wis.  
Mit-Shel Stamping Mfg. Co.  
Quincy, Ill.  
Oakes Mfg. Co.  
Tipton, Ind.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
(See Adv. on Page 139)

## FLOAT VALVES

Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## FOOD COOKER

Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## GLASS—POULTRY HOUSE

Acetol Products Co.  
Wilmington, Del.  
Allen Brothers, Inc.  
Omaha, Nebr.  
Fleming Bros.  
Chicago, Ill.  
Flex-O-Glass Mfg. Co.  
Chicago, Ill.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Turner Bros.  
Bladen, Neb.  
Vitalite Co.  
New York, N. Y.

## GRIT

Limestone Products Corp. of America  
Newton, N. J.  
Louisiana Crushing Co.  
Houma, La.  
Ohio Marble Co.  
Piqua, Ohio

## INCUBATORS

Automatic Incubator Co.  
Delaware, Ohio  
Buckeye Incubator Co.  
Springfield, Ohio  
Bundy Incubator Co.  
Springfield, Ohio  
Hoeft & Company, Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
James Mfg. Co.  
Ft. Atkinson, Wis.  
Oakes Mfg. Co.  
Tipton, Ind.  
Petersime & Son, Ira M.  
Gettysburg, Ohio

Reliable Incubator & Brooder Co.  
Quincy, Ill.

(See Adv. on Page 153)

Smith Incubator Co.  
Cleveland, Ohio  
Smith Co., Wellington J.  
Cleveland, Ohio

## LEG BANDS

Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
National Poultry Band Co.  
Newport, Ky.  
Oakes Mfg. Co.  
Tipton, Ind.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## LICE KILLERS

Acme White Lead & Color Works  
Detroit, Mich.  
(See Adv. on Page 153)  
"Black Leaf 40"  
Tobacco By-Products & Chemical Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)  
Burrell-Dugger Co.  
Indianapolis, Ind.  
Good, Inc., James  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Lee Co., Geo. H.  
Omaha, Neb.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
National Poultry Band Co.  
Newport, Ky.  
Nicotine Mfg. Co.  
Henderson, Ky.  
Shepard Laboratories  
Council Bluffs, Iowa  
Smith & Co., D. B.  
Utica, N. Y.  
Uniform Products Co.  
New York, N. Y.

## MARKING PUNCHES

Bayerdorfer, M.  
Huguenot Park, N. Y.  
Hoeft & Co.  
North Chicago, Ill.  
(See Adv. on Page 155)  
National Poultry Band Co.  
Newport, Ky.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## MEAT SCRAPS

Badenoch Co., J. J.  
Chicago, Ill.  
Conkey Co., The G. E.  
Cleveland, Ohio  
Darling & Co.  
Chicago, Ill.

**WHILE YOU'RE AT IT  
GET THEM ALL!**

"Black Leaf 40" spread lightly on perches gives a clean-up of body lice and feather mites of poultry. "Black Leaf 40" contains plenty of nicotine to kill adult lice and there will be enough remaining on the perches to kill young lice as they hatch. Under ordinary conditions lice hatch in from seven to ten days—thus "Black Leaf 40" gives a thorough clean-up. A drop on the back of bird's necks kills head lice. When you sell "Black Leaf 40" you are selling satisfaction and repeat orders.

**"Black  
Leaf  
40"**

**KILLS BOTH YOUNG AND ADULT LICE ON POULTRY**  
**TOBACCO BY-PRODUCTS & CHEMICAL CORP., INC., LOUISVILLE, KENTUCKY**



## POULTRY SUPPLIES—Continued

**Meat Scraps—Continued**

Reading Bone Fertilizer Co.  
Reading, Pa.  
Stadler Products Co.  
Cleveland, Ohio  
Swift & Co.  
Chicago, Ill.  
Wilson & Co., Inc.  
Chicago, Ill.

**NESTS**

Brower Mfg. Co.  
Quincy, Ill.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Illinois Supply Co.  
Aurora, Ill.  
Nieman Bros. Mfg. Co.  
Mt. Olive, Ill.  
Oakes Mfg. Co.  
Tipton, Ind.  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

**NEST EGGS**

Hoeft & Co., Inc.  
North Chicago, Ill.  
(See Adv. on Page 155)  
Illinois Supply Co.  
Aurora, Ill.  
Opal Glass Co.  
Fairmont, W. Va.  
Reynolds Mfg. Co.  
Fredericktown, Ohio  
Wood & Sons, T. W.  
Richmond, Va.

**OYSTER SHELLS**

Badenoch Co., J. J.  
Chicago, Ill.  
Conkey Co., The G. E.  
Cleveland, Ohio  
Oyster Shell Prod. Corp.  
New York, N. Y.  
Peerless Oyster Co.  
Baltimore, Md.

**PIGEON SUPPLIES**

Bayerdorfer, M.  
Huguenot Park, N. Y.  
Blamberg Bros., Inc.  
Baltimore, Md.  
(See Adv. on Page 23)  
Conkey Co., The G. E. (Feeds)  
Cleveland, Ohio  
Cyclone Mfg. Co., The  
Urbana, Ind.  
Dickinson Co., The Albert (Feeds)  
Chicago, Ill.  
(See Adv. on Page 132)  
Hew's & Co., A. H. (Nests)  
Cambridge, Mass.  
Illinois Supply Co.  
Aurora, Ill.  
Mussog's Bird Store  
Philadelphia, Pa.  
National Pet Shops  
St. Louis, Mo.  
Nowak Milling Co. (Feed)  
Hammond, Ind.  
Philadelphia Seed Co. (Feed)  
Philadelphia, Pa.  
(See Adv. on Page 26)  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
(See Adv. on Page 40)

**POULTRY LITTER**

Albers Bros. Mfg. Co.  
San Francisco, Cal.  
Anderson Box Co.  
Indianapolis, Ind.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
(See Adv. on Page 129)  
Bremermann & Co., Ernst  
New York, N. Y.

Klein Mfg. Co.  
Burlington, Iowa  
Julius Loewith, Inc.  
New York, N. Y.  
(See Adv. on Page 63)  
Peat Import Corp.  
New York, N. Y.  
Phillips, C. J.  
St. Louis, Mo.  
Premier Peat Moss Corp.  
New York, N. Y.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
(See Adv. on Page 40)  
The O. K. Co.  
New York, N. Y.  
Wilber-Ellis  
San Francisco, Cal.

**POULTRY REMEDIES**

American Dry Milk Institute  
Chicago, Ill.  
Atlanta Chemical Co.  
Atlanta, Ga.  
Barnes Emulsion Co.  
Gardena, Calif.  
Bee Dee Stock Medicine Co.  
Chattanooga, Tenn.  
"Black Leaf 40"  
Tobacco By-Products & Chemical Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)  
Burrell-Dugger Co.  
Indianapolis, Ind.  
Carbola Chemical Co.  
Natural Bridge, N. Y.  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.  
Chic-Tone Co., Inc.  
Augola, Ind.  
Columbus Vaccine Co.  
Columbus, Ohio  
Conkey Co., G. E.  
Cleveland, Ohio  
French Co., R. T.  
Rochester, N. Y.  
General Laboratories, Inc.  
Philadelphia, Pa.  
Germo Mfg. Co.  
St. Louis, Mo.  
Gland-O-Lac Co.  
Omaha, Neb.  
Glover Co., Inc., H. Clay  
New York, N. Y.  
Good, Inc., James  
Philadelphia, Pa.  
(See Adv. on Page 147)  
Hess & Clark, Inc., Dr.  
Ashland, Ohio  
Kalo Co.  
Quincy, Ill.  
(See Adv. on Page 135)  
Lee Co., Geo. H.  
Omaha, Neb.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Magic Stock Remedy Co., Inc.  
Chattanooga, Tenn.  
Old Kentucky Mfg. Co.  
Paducah, Ky.  
Pratt Food Co.  
Philadelphia, Pa.  
Russell Co., I. D.  
Kansas City, Mo.  
Salsbury, Dr. J. E.  
Charles City, Iowa  
Sheer Co., H. M.  
Quincy, Ill.  
South Mountain Hennery Co., The  
Middletown, Md.  
Standard Chem. Mfg. Co.  
Omaha, Nebr.  
Tregrove Poultry Farm  
Portland, Ore.  
Wood & Sons, T. W.  
Richmond, Va.

**POULTRY HOUSES**

Beck Bros.  
Herrick, Ill.



## POULTRY SUPPLIES—Concluded

## RABBIT SUPPLIES

Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Illinois Supply Co.  
Aurora, Ill.  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa

## SCRAPERS—DROP BOARD

C-K-R Co.  
Cleveland, Ohio  
Reliable Incubator & Brooder Co.  
Quincy, Ill.  
(See Adv. on Page 153)

## SODIUM FLUORIDE

Burrell-Dugger Co.  
Indianapolis, Ind.  
Carbolineum Wood Preserving Co.  
Milwaukee, Wis.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Grasselli Chemical Co., The  
Cleveland, Ohio  
(See Adv. on Second Cover)

Merck & Co., Inc.  
Rahway, N. J.  
Virginia-Carolina Chemical Corp.  
Richmond, Va.

## TOBACCO POWDER

Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Nicotine Production Corp.  
Clarksville, Tenn.  
Tobacco By-Products & Chemical Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)  
Uniform Products Co.  
New York, N. Y.

## WORM MEDICINE

Barnes Emulsion Co.  
Gardena, Calif.  
Le Gear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
Pratt Food Co.  
Philadelphia, Pa.  
Tobacco By-Products & Chem. Corp.  
Louisville, Ky.  
(See Adv. on Pages 140-142-157-159)

## STOCK FOODS AND REMEDIES

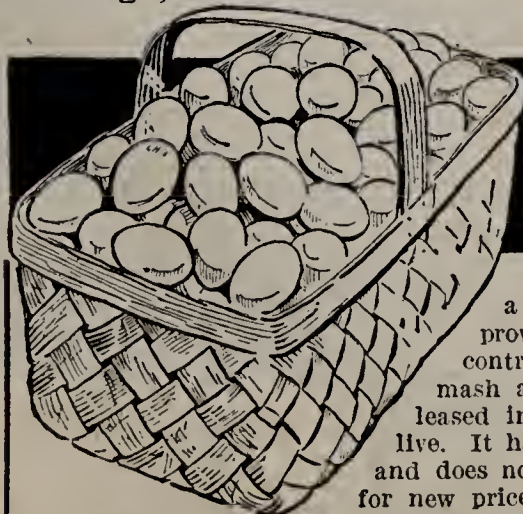
## STOCK FOODS

Allied Mills  
Chicago, Ill.  
American Dry Milk Institute  
Chicago, Ill.  
Badenoch Co., J. J.  
Chicago, Ill.  
Blatchford Calf Meal Co.  
Waukegan, Ill.  
Conkey Co., G. E.  
Cleveland, Ohio  
Dairy Association Co., Inc.  
Lyndonville, Vt.  
Happy Feed Mills, Inc.  
Memphis, Tenn.  
International Sugar Feed Co.  
Minneapolis, Minn.  
Kalo Company  
Quincy, Ill.  
(See Adv. on Page 135)  
Magic Stock Remedy Co., Inc.  
Chattanooga, Tenn.  
Newday Seeds, Inc.  
Fargo, N. D.  
(See Adv. on Page 25)  
Nowak Milling Corporation  
Hammond, Ind.  
Penick & Ford Sales Co., Inc.  
Cedar Rapids, Iowa  
Pratt Food Co.  
Philadelphia, Pa.  
Ralston Purina Co.  
St. Louis, Mo.  
Security Calf Food Co.  
Minneapolis, Minn.  
Vitality Mills  
Chicago, Ill.

Wilson & Co., Inc.  
Chicago, Ill.

## STOCK REMEDIES

Blackman Stock Remedy Co.  
Chattanooga, Tenn.  
Dairy Association Co.  
Lyndonville, Vt.  
Fleming Bros.  
Chicago, Ill.  
Gland-O-Lac Co.  
Omaha, Neb.  
Glover Co., Inc., H. Clay  
New York, N. Y.  
Goulard & Olena, Inc.  
New York, N. Y.  
(See Adv. on Page 145)  
Hess & Clark, Inc., Dr.  
Ashland, Ohio  
Kalo Company  
Quincy, Ill.  
(See Adv. on Page 135)  
Lee Co., Geo. H.  
Omaha, Neb.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Lusterine Mfg. Co., Inc.  
Bridgeport, Conn.  
Nowak Milling Co.  
Hammond, Ind.  
Pratt Food Co.  
Philadelphia, Pa.  
Security Calf Food Co.  
Minneapolis, Minn.  
Standard Chemical Mfg. Co.  
Omaha, Neb.



# There's NO BREAK IN PRODUCTION

"Black Leaf" Worm Powder is nicotine in a new form—odorless and tasteless. It provides quick, effective and low-priced control for poultry roundworm. Mix in mash and feed once. The nicotine is released in the intestines where the worms live. It has no toxic effect on the birds—and does not interrupt production. Write for new prices, leaflets and sales-helps.

TOBACCO BY-PRODUCTS & CHEMICAL CORP., INC.  
Louisville, Kentucky.

**"Black Leaf"**  
**WORM  
POWDER**



## MISCELLANEOUS SIDE LINES

### BEE SUPPLIES

Dadant & Sons  
Hamilton, Ill.  
Kilgore Seed Co.  
Plant City, Fla.  
Leahy Mfg. Co.  
Higginsville, Mo.  
Lewis Co., G. B.  
Watertown, Wis.  
Root Co., A. I.  
Medina, Ohio  
(See Adv. on Page 161)  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa.  
Scott Co., I. W.  
Pittsburgh, Pa.

### BOOKS ON FARMING AND GARDENING

DeLaMare Co., Inc., A. T.  
New York City, N. Y.  
Doubleday, Doran & Co.  
Garden City, N. Y.  
Lippincott Co., J. B.  
Philadelphia, Pa.  
Little, Brown & Co.  
Boston, Mass.  
MacMillan Co., The  
New York City, N. Y.  
Orange Judd Publ. Co., Inc.  
New York City, N. Y.

### BOWLS—BULB

Brush Pottery Co.  
Zanesville, Ohio  
Haeger Potteries  
Dundee, Ill.  
Louisville Pottery Co., Inc.  
Louisville, Ky.  
Paducah Pottery Co.  
Paducah, Ky.  
Pittsburg Pottery Co.  
Pittsburg, Kan.  
Roseville Pottery Co.  
Zanesville, Ohio  
Uhl Pottery Co.  
Evansville, Ind.  
Wells Glass Co. (Colored Glass Chips)  
Kokomo, Ind.  
Western Stoneware Co.  
Monmouth, Ill.  
Zane Pottery Co.  
So. Zanesville, Ohio

### BRAIDS—TYING

Fricke Co., J. E.  
Philadelphia, Pa.

### DAIRY SUPPLIES

Cherry-Burrell Corp.  
New York, N. Y.  
Creamery Package Mfg. Co.  
New York, N. Y.  
Duggar Mfg. Co., L. G.  
Hope Hull, Ala.  
Pilling & Son Co., G. P.  
Philadelphia, Pa.  
Pratt Mfg. Co., Wm. E.  
Joliet, Ill.  
Toledo Bottle Cap Co.  
Toledo, Ohio

### FLOWERS—ARTIFICIAL

Adler-Jones Co.  
Chicago, Ill.  
DeWitt Sisters  
Battle Creek, Mich.

### FRUIT GRADERS

Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

### GARDEN GLOVES

National Glove Co.  
Columbus, Ohio

### GLOBES (GAZING)

Express Body Corp.  
Crystal Lake, Ill.  
Putnam's—Gold and Tropical Fish  
Buffalo, N. Y.  
Testrite Instrument Co. (Also Sun Dials)  
New York, N. Y.  
Western Stoneware Co.  
Monmouth, Ill.

### HANGING BASKETS

Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)  
Miller & Doing  
Brooklyn, N. Y.  
Pittsburg Pottery Co.  
Pittsburg, Kan.  
Raedlein Basket Co.  
Chicago, Ill.  
Savo Mfg. Co.  
Chicago, Ill.  
Western Stoneware Co.  
Monmouth, Ill.

### MUSHROOM SPAWN

American Spawn Co.  
St. Paul, Minn.  
Chester County Mushroom Laboratories  
West Chester, Pa.  
Jacob, Inc., Edward H.  
West Chester, Pa.  
Lambert, L. F.  
Coatesville, Pa.

### HOTKAPS

Germain Seed & Plant Co.  
Los Angeles, Calif.  
(See Adv. on Page 161)

### RAFFIA

Kilgore Seed Co.  
Plant City, Fla.  
King & Walters, Inc.  
New York, N. Y.  
Loewith, Inc., Julius  
New York City, N. Y.  
(See Adv. on Page 63)  
McHutchison & Co.  
New York, N. Y.  
(See Adv. on Page 161)  
Meehan Co., Thomas B.  
Dresher, Pa.  
Schoorl, Adrian J.  
San Francisco, Cal.

### SCOOPS

Michigan Wire Goods Co. (Wire)  
(Potato, Corn, Apple)  
Niles, Mich.  
(See Adv. on Page 139)

### SEED TESTING

Commercial Seed Laboratory  
Washington, D. C.  
International Seed Service, Inc.  
New York, N. Y.  
(See Adv. on Page 59)  
National Seed Laboratory  
Toledo, Ohio

### SOIL STERILIZERS

Acroil Burner Co., Inc.  
West New York, N. J., Chicago &  
San Francisco  
Bayer Semesan Co.  
Wilmington, Del.  
Grasselli Chemical Co.  
Cleveland, Ohio  
(See Adv. on Second Cover)  
General Chemical Co.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
(See Adv. on Page 143)



## Sell Root Quality Bee Supplies



A side line that brings new customers into your store. Big 64 page catalog free for store inquiries. Get in our line-up of Root dealers for 1935 and benefit by our listing your name in our catalog.

*Write for our advertising proposition in your seed catalog.*

The  
A. I. Root Co.  
Medina, Ohio  
BOX 40.



Our Advertisers Made  
This Book Possible

**USE THE STICKER!**

(Page Facing Inside Back Cover)

and you will convince  
them that it was worth  
the effort.

# RAFFIA

**DIRECT IMPORTS**

*and*

**Immediate Shipment  
From Warehouse Stock**

» CARLOADS «  
or LESS

We have exclusive connections at the source. We handle no odd lots of questionable origin accumulated in European ports. Our quality is always uniformly good and prices low.

State Your Needs for Quotation



**AUSTRALIAN GRASS SEEDS**

*Import and Spot Shipment*

**JAP. BAMBOO CANES**

**CHINESE TONKIN CANES**

**FLOWER BULB SPECIALTIES**

**McHutchison & Co.**

95 Chambers St. New York



An "Individual  
Hothouse"  
For Every Plant



Germāco

# Hotkaps

**GET CROPS TO MARKET  
3 WEEKS EARLIER**

Sell Hotkaps to your customers. They profit; you, too. Write for descriptive pamphlet and sample.

**GERMAIN'S  
HOTKAP MFG. DIVISION  
741-747 Terminal Street,  
Los Angeles, Calif.**



## MISCELLANEOUS SIDE LINES—Concluded

## SOIL TESTERS

Dickinson Co., The Albert  
Chicago, Ill.  
(See Adv. on Page 132)  
Earp-Thomas Laboratory  
Bloomfield, N. J.

## TAPES—TYING

Fricke Co., J. E. (Tying and Gummed)  
Philadelphia, Pa.

## TREE PROTECTION

Davey Tree Expert Co. (Surgeons)  
Kent, Ohio  
Hammond Paint & Chem. Co. (Tree Wound  
Paint)  
Beacon, N. Y.  
(See Adv. on Page 143)  
Owens Co., J. L.  
Minneapolis, Minn.  
Tanglefoot Co., The  
Grand Rapids, Mich.

## TWINE-SEWING AND TYING

Bemis Bro. Bag Co.  
St. Louis, Mo.  
(See Adv. on Page 1)  
Chase Bag Co.  
Cleveland, Ohio  
Fricke Co., J. E.  
Philadelphia, Pa.  
Southern Cotton Mills Agency  
Baltimore, Md.

## TWINE-BINDER AND WRAPPING

Fricke Co., J. E.  
Philadelphia, Pa.

## TYING MACHINES

Bunn Co., B. H. (Package Tying Machines)  
Chicago, Ill.  
Felins Tying Machine Co.  
Milwaukee, Wis.

National Bundle Tyer Co. (Vegetable)  
Blissfield, Mich.  
Tie Company, The  
Unadilla, N. Y.

## WEED BURNERS

Aeroll Burner Co., Inc.  
West New York, N. J., Chicago &  
San Francisco

## XMAS GREENS

Chesmore Seed Co.  
St. Joseph, Mo.  
Conwell, Inc., H. Ernest  
Milton, Del.  
Diamond State Evergreen Co.  
Milton, Del.  
Jones, The Holly Wreath Man  
Milton, Del.  
Neilson, Knud  
Evergreen, Ala.  
Platten's Christmas Trees, Inc.  
Green Bay, Wis.  
Quality Seed House (Mistletoe)  
Chickasha, Okla.  
E. C. Robbins  
Pineola, N. C.  
Sioux City Seed Co.  
Sioux City, Iowa  
(See Adv. on Pages 73 and 95)

## XMAS TREE HOLDERS

Arcade Mfg. Co.  
Freeport, Ill.  
Campbell-Hausfeld Co., The  
Harrison, Ohio  
(See Adv. on Page 147)  
Chesmore Seed Co.  
St. Joseph, Mo.  
Clark Mfg. Co., The  
Philadelphia, Pa.  
Interstate Specialty Co.  
North Manchester, Ind.  
Root Co. of Iowa, A. I.  
Council Bluffs, Iowa

## SEEDSMEN'S SUPPLIES

ACCOUNTANTS AND ACCOUNTING  
SYSTEMS

Ernst & Ernst  
New York, N. Y.

## ADV. FOR SEEDSMEN

Benton Review Shop  
Fowler, Ind.  
DeLaMare Co., Inc., A. T.  
New York, N. Y.  
Dubois Press  
Rochester, N. Y.  
McFarland Publicity Service  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Pitts Studios, Inc. (Cuts and Photos)  
Rochester, N. Y.  
Rochester Litho. Co.  
Rochester, N. Y.  
Wallace-Homestead Co.  
Des Moines, Iowa

## ALFALFA MILLS

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## APRONS

Atlantic Mfg. Co. (Leather)  
Wilmington, Del.  
Windermere Products Mfg. Co. (Rubber)  
Cleveland, Ohio

## BAG CLEANERS

Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

## BAG CLOSING MACHINES

Arnold Schuyler  
Coldwater, N. Y.  
(See Adv. on Page 163)

Brown Bag Filling Machine Co.  
Fitchburg, Mass.

(See Adv. on Page 163)

Bates Valve Bag Corp.

New York, N. Y.

Savage Co., W. J.

Knoxville, Tenn.

Union Special Machine Co.

Chicago, Ill.

## BAG FILLING MACHINES

Brown Bag Filling Machine Co.  
Fitchburg, Mass.

(See Adv. on Page 163)

Ferguson Co., J. L.

Joliet, Ill.

Frazier & Son

Belleville, N. J.

Howes Co., Inc., S.

Silver Creek, N. Y.

(See Adv. on Page 167)

Huntley Mfg. Co.

Brocton, N. Y.

Lehmann Co., Inc., J. M.

New York, N. Y.

Richardson Scale Co.

Clifton, N. J.

Sidney Grain Machinery Co.

Sidney, Ohio

Stokes & Smith Co., The

Philadelphia, Pa.

Union Special Machine Co.

Chicago, Ill.

## BAG HOLDERS

Howes Co., Inc., S.

Silver Creek, N. Y.

(See Adv. on Page 167)

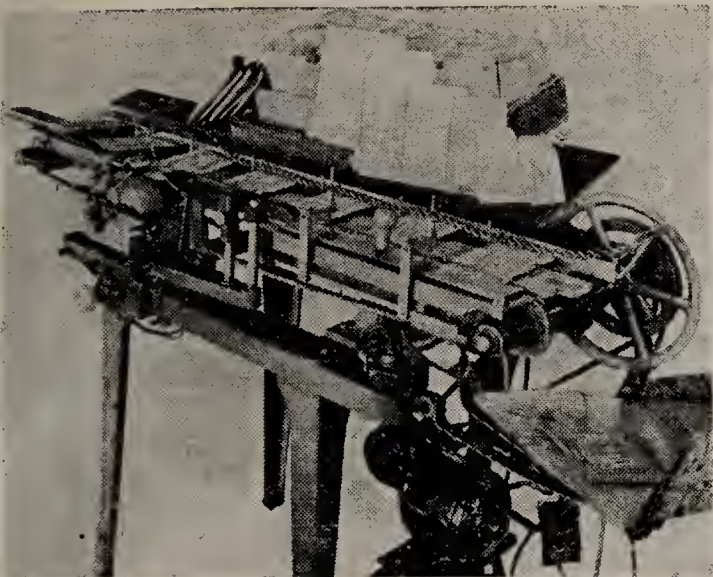
Richardson Scale Co.

Clifton, N. J.

Sprout, Waldron & Co.

Muncy, Pa.





*The improved*  
**QUICK-SEAL**  
**Envelope Sealing Machine**

Will solve your seed packet and catalog envelope sealing problems.

Designed and manufactured by a seedsman especially for seedsmen.

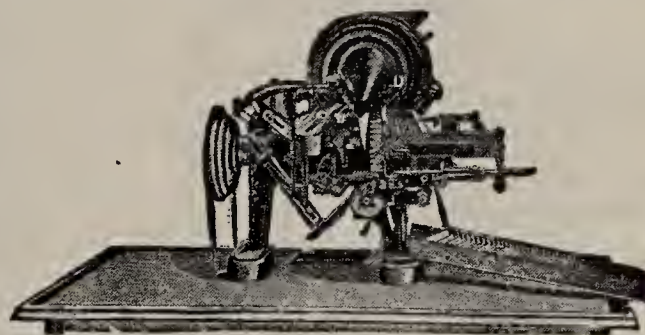
Instantly adjustable to any size from small flower seed packets to pounds of beans and catalog envelopes. Capacity up to 6000 per hour and economically seals very small quantities. No servicing required—nothing to wear out. Pays for itself in one season.

For complete information write

**SCHUYLER ARNOLD**

283 Marlborough Road, ROCHESTER, N. Y.

*Save* **TIME & MONEY**  
*with*  
**BROWN SEED  
 PACKET FILLERS**



We manufacture a complete line of Return Envelopes, Seed Packets, Catalog Envelopes, Bag-Filling Machines for filling seeds in flat packets and Bag-Making machines. **BROWN BAG FILLING MACHINES** automatically fill flat packets with all varieties of seeds. Measure the seed. Fill the packet. Seal it tight. Require but one operator. Deliver 3,000 packets per hour. Reduce labor costs. Eliminate waste. Insure accuracy. Speed up orders.

*Write for Catalog C-30*

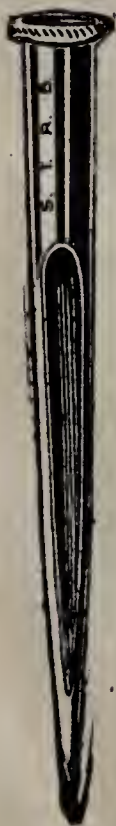
**THE BROWN BAG FILLING  
 MACHINE COMPANY**

**FITCHBURG**

**MASSACHUSETTS**

# SEED BAG TRIERS

## QUICK — SAFE CONVENIENT



Seed triers for quick, convenient drawing of samples without opening or tearing bag. Brass with steel point heavily nickel plated, with solid leather protector.

6 in. long, Price \$1.00 ea.; \$10.50 per doz.

9 in. long, with metal shield, Price \$2.00 ea.

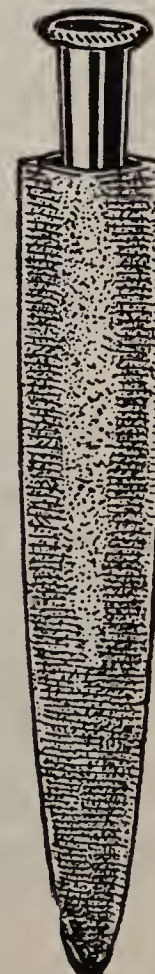
12 in. long, with metal shield, Price \$3.00 ea.

**Seed Trade Reporting Bureau**

325 W. Huron St.

**CHICAGO**

**ILLINOIS**





## SEEDSMEN'S SUPPLIES—Continued

**BAG MAKING MACHINES**

**Brown Bag Filling Machine Co.**  
**Fitchburg, Mass.**  
 (See Adv. on Page 163)

**BAG PILERS—CONVEYORS**

**Revolvator Co.**  
**Jersey City, N. J.**

**BAG SEALS**

**Bates Valve Bag Corp.**  
**New York, N. Y.**  
**Brooks Co., E. J.**  
**Newark, N. J.**  
 (See Adv. on Page 165)  
**Porter Safety Seal Co.**  
**Chicago, Ill.**  
 (See Adv. on Page 165)  
**Protecto-Seal Co.**  
**Buffalo, N. Y.**  
 (See Adv. on Page 165)

**BAG STITCHING MACHINES**

**Savage Co., W. J.**  
**Knoxville, Tenn.**  
**Union Special Machine Co.**  
**Chicago, Ill.**

**BAG TRIERS**

**Seed Trade Reporting Bureau**  
**Chicago, Ill.**  
 (See Adv. on Page 163)

**BASKETS**

**Planters Mfg. Co., Inc. (Field Tomato)**  
**Portsmouth, Va.**  
**Standard Basket Co.**  
**Chicago, Ill.**

**BEAN PICKERS**

**Ferrell & Co., A. T.**  
**Saginaw, Mich.**  
**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)  
**Huntley Mfg. Co.**  
**Brocton, N. Y.**

**BAGS—COTTON OR BURLAP**

**Bemis Bro. Bag Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 1)  
**Chase Bag Co.**  
**Cleveland, Ohio**  
**Cincinnati Bag Co.**  
**Cincinnati, Ohio**  
**National Bag Co.**  
**Naperville, Ill.**  
**National Bag Co., Inc.**  
**St. Louis, Mo.**  
**Southern Cotton Mills Agency**  
**Baltimore, Md.**

**BAGS—PAPER**

**Bates Valve Bag Corp.**  
**New York, N. Y.**  
**Bemis Bro. Bag Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 1)  
**Brown Bag Filling Machine Co.**  
**Fitchburg, Mass.**  
 (See Adv. on Page 163)  
**Chase Bag Co.**  
**Cleveland, Ohio**  
**Disbrow Mfg. Co. (Satchel Bottom Bags and Packets)**  
**Newark, N. J.**  
 (See Adv. on Page 174)  
**International Paper Co.**  
**New York, N. Y.**  
**Miller, Tompkins & Co.**  
**East Rutherford, N. J.**  
 (See Adv. on Page 169)

**BELTING**

**Atlantic Mfg. Co. (Rubber and Leather)**  
**Wilmington, Del.**

**BLOWERS—ELECTRIC**

**Oliver Mfg. Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 55)

**BOX LABELS AND HANGERS**

**Genesee Valley Lithograph Co.**  
**Rochester, N. Y.**

**BOXES—PARCEL POST**

**Campbell Box & Tag Co.**  
**South Bend, Ind.**  
 (See Adv. on Page 175)  
**Disbrow Mfg. Co.**  
**Newark, N. J.**  
 (See Adv. on Page 174)  
**Container Corp. of America**  
**Chicago, Ill.**  
**Gaylord, Inc., Robt.**  
**St. Louis, Mo.**  
**Goodwillie Co., D. M.**  
**Chicago, Ill.**  
**Indiana Fibre Products Co.**  
**Marion, Ind.**  
**Hinde & Dauch Paper Co.**  
**Sandusky, Ohio**

**BULB EDGE GLASS**

**Heller & Co., W. C.**  
**Montpelier, Ohio**

**CANS—FIBRE AND TIN**

**American Can Co.**  
**Chicago, New York and San Francisco**  
**Sefton Nat'l Fibre Can Co.**  
**Chicago, Ill.**

**CARTONS—PAPER**

**Bird & Son**  
**East Walpole, Mass.**  
 (See Adv. on Page 55)  
**Campbell Box & Tag Co.**  
**South Bend, Ind.**  
 (See Adv. on Page 175)  
**Disbrow Mfg. Co. (Corrugated)**  
**Newark, N. J.**  
 (See Adv. on Page 174)  
**Galloway Lithographing Co.**  
**San Francisco, Calif.**  
 (See Adv. on Page 165)  
**Gereke-Allen Carton Co.**  
**St. Louis, Mo.**  
**Stecher-Traung Lithograph Corp.**  
**Rochester, N. Y.**  
 (See Adv. on Page 173)  
**Weaver Mailing Env. & Box Co.**  
**Philadelphia, Pa.**  
**Webster Co., Mel L.**  
**Independence, Ia.**

**CARTONS—PRINTED**

**Disbrow Mfg. Co.**  
**Newark, N. J.**  
 (See Adv. on Page 174)  
**Galloway Lithographing Co.**  
**San Francisco, Calif.**  
 (See Adv. on Page 165)  
**Genesee Valley Lithograph Co.**  
**Rochester, N. Y.**  
**Stecher-Traung Lithograph Corp.**  
**Rochester, N. Y.**  
 (See Adv. on Page 173)

**CATALOG COLORED COVERS**

**Benton Review Shop**  
**Fowler, Ind.**  
**Dubois Press**  
**Rochester, N. Y.**  
**Excelsior Printing Co.**  
**Chicago, Ill.**  
**Galloway Lithographing Co.**  
**San Francisco, Calif.**  
 (See Adv. on Page 165)  
**Genesee Valley Lithograph Co.**  
**Rochester, N. Y.**  
**Horticultural Press, Inc., The**  
**Chicago, Ill.**  
 (See Adv. on Page 172)





# SEALS and SELLS

A Tamper Proof Seal which displays your trademark or brand name in colors. May be attached to the bag with cord, wire or ribbon. Write for Samples and Complete Information.

PROTECTO SEAL CO., INC.  
1337 MAIN STREET  
BUFFALO, NEW YORK

# SEED PACKETS

FOR THE MOST  
COMPLETE LINE OF

## FLOWER & VEGETABLE PACKETS

SEE THE  
GALLOWAY LINE

**SCHMIDT LITHOGRAPH CO.**  
GALLOWAY LITHO. CO.  
DIVISION  
SAN FRANCISCO - CAL.

Every bag of seed sold  
on a quality basis  
should be

**PROTECTED** from  
**ADULTERATION**  
or **SUBSTITUTION**  
with

## THE PORTER SAFETY SEAL

**The Seal That Seals**

The sealing implement imprints your name and address on the lead-and-cord seal and is equipped with a cord tightening device which pulls the cords so tight around the neck of the bag that the seal cannot be removed or manipulated without destroying the seal.

Sample sealed bag and  
full information sent  
on request.

PORTER SAFETY  
SEAL COMPANY

269 N. California Ave.  
Chicago

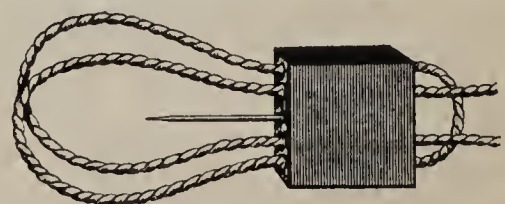


## GRIP-LOCK

*the foolproof*  
**SELF-LOCKING  
BAG SEAL**

The GRIP-LOCK is the very latest development in Bag Seals and is ideal for seedsmen's use. It prevents substitution and adulteration. After being once locked, relocking is impossible. It is also simple and easy to use as no machine is needed.

The lead pin bag seal SHOWN BELOW is another of the many types we manufacture for sealing seed bags.



*Write for Sample and Complete  
Information*

**E. J. BROOKS CO.**  
164 North 13th St. Newark, N. J.



## SEEDSMEN'S SUPPLIES—Continued

**Catalog Colored Covers—Continued**

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Pitts Studios, Inc.  
Rochester, N. Y.

Stecher-Traung Lithograph Corp.  
Rochester, N. Y.

(See Adv. on Page 173)

Wallace-Homestead Co.  
Des Moines, Iowa

**CATALOG ILLUSTRATIONS**

McFarland Co., J. Horace  
Harrisburg, Pa.

Pitts Studios, Inc.  
Rochester, N. Y.

**CATALOG PRINTERS**

American Colortype Co.  
Chicago, Ill.

Benton Review Shop (Stock Seed Catalogs)  
Fowler, Ind.

Byrd Press, Inc., The Wm.  
Richmond, Va.

DeLaMare Co., Inc., A. T.  
New York, N. Y.

Du Bois Press  
Rochester, N. Y.

Excelsior Printing Co.  
Chicago, Ill.

Hall Printing Co., W. F.  
Chicago, Ill.

Horticultural Press, Inc., The  
Chicago, Ill.

(See Adv. on Page 172)

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Process Color Printing Co.  
Rochester, N. Y.

Wallace-Homestead Co.  
Des Moines, Iowa

**CLEANING MACHINERY**

Carter-Mayhew Mfg. Co.  
Minneapolis, Minn.

Cleland Mfg. Co.  
Minneapolis, Minn.

Eddy Seed Cleaners, Ltd.  
Toronto, Ont., Can.

Ferrell & Co., A. T.  
Saginaw, Mich.

Howes Co., Inc., S.  
Silver Creek, N. Y.

(See Adv. on Page 167)

Huntley Mfg. Co.  
Brocton, N. Y.

Oliver Mfg. Co.  
St. Louis, Mo.

(See Adv. on Page 55)

Owens Co., J. L.  
Minneapolis, Minn.

Rice, W. A.  
Jerseyville, Ill.

Sidney Grain Machinery Co.  
Sidney, Ohio

Sprout, Waldron & Co.  
Muncy, Pa.

Sutton, Steele & Steele, Inc.  
Dallas, Texas

(See Adv. on Page 21)

**COLOR REPRODUCTIONS FOR SEEDSMEN AND NURSERYMEN**

Dubois Press  
Rochester, N. Y.

Horticultural Press, Inc., The  
Chicago, Ill.

(See Adv. on Page 172)

McFarland Co., J. Horace  
Harrisburg, Pa.

Morse Co., A. B.  
St. Joseph, Mich.

Pitts Studios, Inc.  
Rochester, N. Y.

**COMMERCIAL SEED TESTING**

Commercial Seed Laboratory  
Washington, D. C., and Toledo, O.

**International Seed Service, Inc.**

New York, N. Y.

(See Adv. on Page 59)

National Seed Laboratory  
Toledo, Ohio

**COPYRIGHTS**

Anderson, Wm. E.  
Chicago, Ill.

Ely & Pattison  
New York, N. Y.

**CORN CRACKERS**

Sedberry, Inc., J. B.  
Utica, N. Y.

(See Adv. on Page 167)

**CORN GRADERS**

Baier Bros. Mfg. Co.  
Cissna Park, Ill.

Cleland Mfg. Co.  
Minneapolis, Minn.

Ferrell & Co., A. T.  
Saginaw, Mich.

Howes Co., Inc., S.  
Silver Creek, N. Y.

(See Adv. on Page 167)

Hunnicut Co., Chas.  
Wilmington, Ohio

Huntley Mfg. Co.  
Brocton, N. Y.

Owens Co., J. L.  
Minneapolis, Minn.

Richards & Sons, Ross V.  
North Manchester, Ind.

Savage Co., W. J.  
Knoxville, Tenn.

Sutton, Steele & Steele  
Dallas, Texas

(See Adv. on Page 21)

Universal Hoist & Mfg. Co.  
Cedar Falls, Iowa

(See Adv. on Page 167)

**CORN SHELLERS**

Duplex Mill & Mfg. Co., The  
Springfield, Ohio

Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.

Howes Co., Inc., S.  
Silver Creek, N. Y.

(See Adv. on Page 167)

Union Iron Works  
Decatur, Ill.

**CORN SORTERS**

Howes Co., Inc., S.  
Silver Creek, N. Y.

(See Adv. on Page 167)

Universal Hoist & Mfg. Co.  
Cedar Falls, Iowa

(See Adv. on Page 167)

**CRACKED CORN CLEANERS AND GRADERS**

Duplex Mill & Mfg. Co., The  
Springfield, Ohio

Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.

Howes Co., Inc., S.  
Silver Creek, N. Y.

(See Adv. on Page 167)

Huntley Mfg. Co.  
Brocton, N. Y.

Savage Co., W. J.  
Knoxville, Tenn.

Sutton, Steele & Steele, Inc.  
Dallas, Texas

(See Adv. on Page 21)

Universal Hoist & Mfg. Co.  
Cedar Falls, Iowa

(See Adv. on Page 167)

**CRUSHERS**

Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.

Sedberry, Inc., J. B.  
Utica, N. Y.

(See Adv. on Page 167)

Straub Co., The A. W.  
Philadelphia, Pa.

Williams Patent Crusher & Pulv. Co.  
St. Louis, Mo.

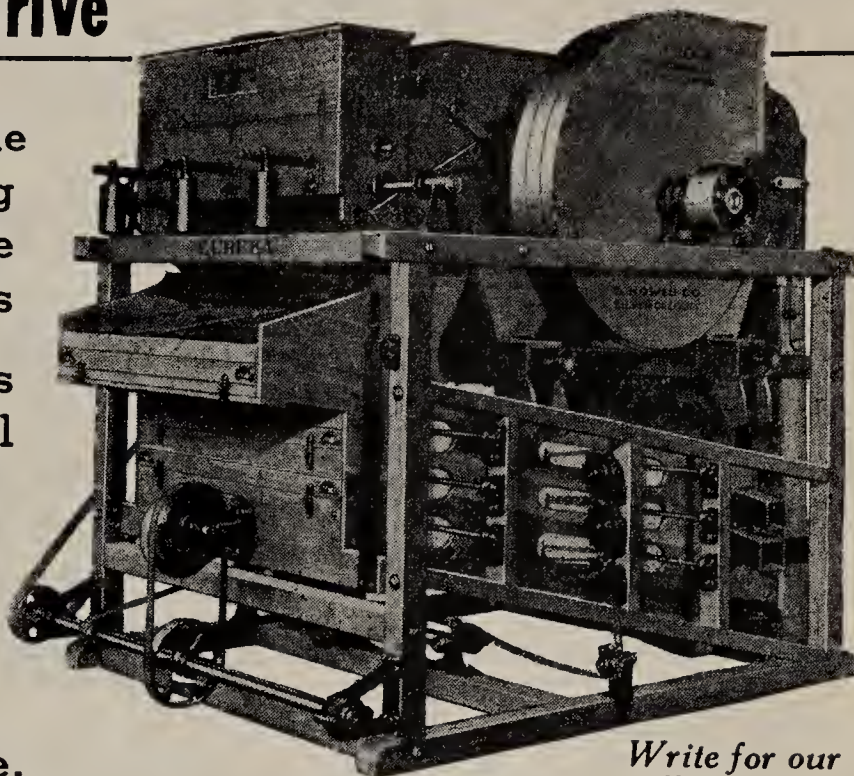


# EUREKA Standardized SEED CLEANER with Eureka Buhler Drive

A modern, efficient machine for doing thorough cleaning and making better, more accurate seed separations

- excellent air separations under perfect control
- closer, more uniform screen separations

Smooth, quiet, steady in operation — vibrationless, eccentric-less Buhler Drive, ball bearings, automatic brush sieve cleaners.



Write for our  
illustrated  
Bulletin No. 130

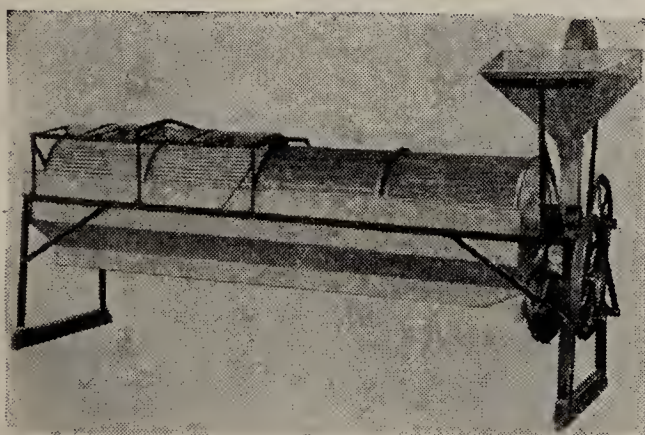


**S. HOWES COMPANY, Inc.**  
Silver Creek

New York



## THE MORECORN SEED CORN GRADER



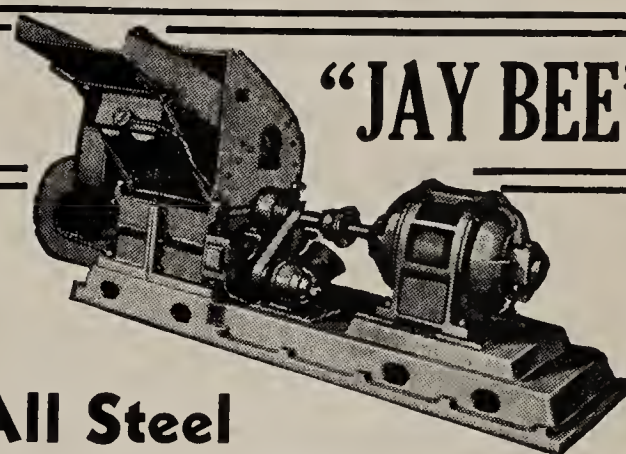
Most efficient and accurate Grader for all varieties of Field Corn, Sweet Corn, Pop Corn as well as beans and other similar grains. Illustration above shows style No. 3, capacity 30 to 40 bushels per hour equipped with electric motor drive. Air Fan Cleaning attachment furnished if desired.

Also made in two smaller sizes with capacity of 6 or 12 Bu. per hour.

Morecorn Graders have been made and sold for the past 25 years, fully guaranteed subject to 10 days trial. Write for detailed information and prices.

**Universal Hoist & Mfg. Co.**

185 E. 14th St. CEDAR FALLS, IOWA



**"JAY BEE"**

## All Steel Hammer Mill

*Here's a Real Business-BUILDER and  
Money-Maker*

The extra profits—the increased good will through a job done well—that's what "JAY BEE" grinding brings you.

Whatever your present or anticipated grinding requirements are, we have a size and type grinder to meet your exact needs. Belt and direct-connected drives.

## World's Standard Grinder

All steel construction makes "JAY BEE" practically indestructible. Grinds everything grindable, without friction or heat—cool and uniform. Over 18,000 Bossert-made "JAY BEE" mills all over the world, setting the **Standard for Capacity, Economy and Durability.**

Write for detailed description, prices, terms, etc.

**J. B. SEDBERRY, INC.**

167 Hickory St., Utica, N. Y.



## SEEDSMEN'S SUPPLIES—Continued

## DUST COLLECTORS

- Day Co., The  
Minneapolis, Minn.  
Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

## DUST PROTECTORS

- Garnett, Herbert (Respirators)  
Maumee, Ohio  
Seed Trade Reporting Bureau  
Chicago, Ill.

## ELEVATORS—AIRLIFT

- Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)

## ENVELOPES

- Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
(See Adv. on Page 163)  
Cupples-Hesse Env. & Litho. Co.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
(See Adv. on Page 174)  
Gaw-O'Hara Envelope Co.  
Chicago, Ill.  
Heco Envelope Co.  
Chicago, Ill.  
(See Adv. on Page 169)  
Heinrich, Inc., John A.  
Minneapolis, Minn.  
Letalog Mailer Co.  
Chicago, Ill.  
Miller, Tompkins & Co.  
East Rutherford, N. J.  
(See Adv. on Page 169)  
Weaver Mailing Envelope & Box Co.  
Philadelphia, Pa.

## FEED GRINDERS

- Anglo-American Mill Co.  
Owensboro, Ky.  
Duplex Mill & Mfg. Co., The  
Springfield, Ohio  
Fairbanks, Morse & Co.  
Chicago, Ill.  
Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.  
Savage Co., W. J.  
Knoxville, Tenn.  
Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)  
Williams Patent Crusher & Pulv. Co.  
St. Louis, Mo.

## FEED PACKAGING MACHINERY

- Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Richardson Scale Co.  
Clifton, N. J.

## FENCING

- Buffalo Wire Works Co., Inc.  
Buffalo, N. Y.  
Michigan Wire Goods Co.  
Niles, Mich.  
(See Adv. on Page 139)

## GERMINATORS

- Herbst Bros.  
New York, N. Y.  
(See Adv. on Page 131 & 73)

Seed Trade Reporting Bureau  
Chicago, Ill.

- (See Adv. on Page 87)  
Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Corp.  
New York City, N. Y.

## GRAIN MILLS

- Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## GRAIN AND SEED CLEANERS

- Carter-Mayhew Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)  
Sutton, Steele & Steele  
Dallas, Texas  
(See Adv. on Page 21)  
Technical Sales Co.  
New York, N. Y.

## GREENHOUSES

- Callahan Co., T. J.  
Dayton, Ohio  
Foley Greenhouse Mfg. Co.  
Forest Park, Ill.  
Lord & Burnham Co.  
Irvington, N. Y.  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

## HAMMER MILLS

- Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## HULLERS

- Allis Chalmers Mfg. Co.  
Milwaukee, Wis.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

## IRRIGATION SYSTEMS

- Dayton Irrigation Co.  
Dayton, Ohio  
March Automatic Irrigation Co.  
Muskegon, Mich.  
White Showers, Inc.  
Detroit, Mich.  
X. L. Mfg. Co.  
Chicago, Ill.  
(See Adv. on Page 139)

## LABORATORY EQUIPMENT

- Heller & Co., W. C.  
Montpelier, Ohio  
Howes Co., Inc., S. (Model Cleaners, Etc.)  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Seed Trade Reporting Bureau  
Chicago, Ill.  
(See Adv. on Page 87)  
Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Corp.  
New York City, N. Y.  
Torsion Balance Co.  
New York City, N. Y.

## LEGAL AID

- Anderson, Wm. E.  
Chicago, Ill.  
Bebb, Herbert  
Chicago, Ill.  
Ely & Pattison  
New York, N. Y.  
Smith, Curtis Nye  
Boston, Mass.



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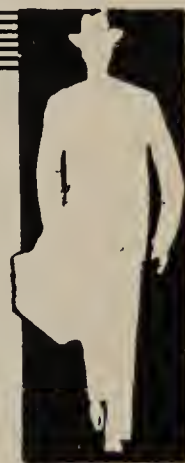
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## SEEDSMEN'S SUPPLIES—Continued

## MIXERS—MOLASSES

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## MIXERS—SEED OR FEED

Gruendler Crusher & Pulv. Co.  
St. Louis, Mo.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
(See Adv. on Page 55)  
Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)  
Sprout, Waldron & Co.  
Muncy, Pa.  
Williams Patent Crusher & Pulv. Co.  
St. Louis, Mo.

## OAT CRUSHERS

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## PACKET FILLING

Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
(See Adv. on Page 163)  
Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Lehman Co., Inc., J. M.  
New York, N. Y.  
Wright-Dalton Machine Co.  
Durham, N. C.

## PACKET FILLING MACHINES

Automatic Packaging Machinery Co.  
Nashua, N. H.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
(See Adv. on Page 163)  
Consolidated Packaging Machinery Corp.  
Buffalo, N. Y.  
Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Lehmann Co., Inc., J. M.  
New York, N. Y.  
Packaging Machinery Co.  
Yonkers, N. Y.  
Stokes & Smith Co., The  
Philadelphia, Pa.  
Wright-Dalton Machine Co.  
Durham, N. C.

## PASTES—GLUES—GUMS

Findley Co., F. G.  
Milwaukee, Wis.

## PATENT ATTORNEY

Anderson, Wm. E.  
Chicago, Ill.  
Ely & Pattison  
New York, N. Y.  
Scheible, Albert  
Chicago, Ill.

## PAPER FOR CATALOGS

Consolidated Water Power & Paper Co.  
Wisconsin Rapids, Wis.  
(See Adv. on Page 171)  
International Paper Co.  
New York, N. Y.  
Kimberly-Clark Co.  
Chicago, Ill.  
Marquette Paper Co.  
Chicago, Ill.

## PAPER—MULCH

International Paper Co.  
New York, N. Y.

## PAPER—WRAPPING

Disbrow Mfg. Co.  
Newark, N. J.  
(See Adv. on Page 174)  
International Paper Co.  
New York, N. Y.  
Safepack Mills  
Mills, Mass.

## PATTERN GARDENS

International Paper Co.  
New York, N. Y.

## POSTERS

Galloway Lithographing Co., Inc.  
San Francisco, Calif.  
(See Adv. on Page 165)  
Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Horticultural Press  
Chicago, Ill.  
(See Adv. on Page 172)  
Morse Co., A. B.  
St. Joseph, Mich.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.  
(See Adv. on Page 173)

## PORTABLE MILLS

Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)

## POULTRY FEED MACHINERY

Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Huntley Mfg. Co.  
Brocton, N. Y.  
Sedberry, Inc., J. B.  
Utica, N. Y.  
(See Adv. on Page 167)  
Williams Patent Crusher & Pulv. Co.  
St. Louis, Mo.

## SAMPLE CASES

Hamilton Mfg. Co.  
Two Rivers, Wis.  
Heller & Co., W. C.  
Montpelier, Ohio  
Knickerbocker Case Co.  
Chicago, Ill.

## SAMPLE PANS

Seed Trade Reporting Bureau  
Chicago, Ill.  
(See Adv. on Page 149)

## SAWDUST FOR CLEANING

Miller & Son, Frank  
Chicago, Ill.

## SCALES—AUTOMATIC

Exact Weight Scale Co., The  
Columbus, Ohio  
(See Adv. on Page 171)  
Fairbanks, Morse & Co.  
Chicago, Ill.  
Ferguson Co., J. L.  
Joliet, Ill.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Richardson Scale Co.  
Clifton, N. J.  
Stokes & Smith Co., The  
Philadelphia, Pa.  
Toledo Scale Co.  
Toledo, Ohio  
Triner Sales Co.  
Chicago, Ill.

## SCALES—COUNTER or PLATFORM

Exact Weight Scale Co., The  
Columbus, Ohio  
(See Adv. on Page 171)  
Fairbanks, Morse & Co.  
Chicago, Ill.



# Get More Packages from Bulk Weight by using **EXACT WEIGHT SCALES**

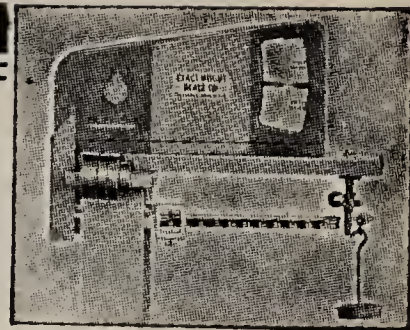
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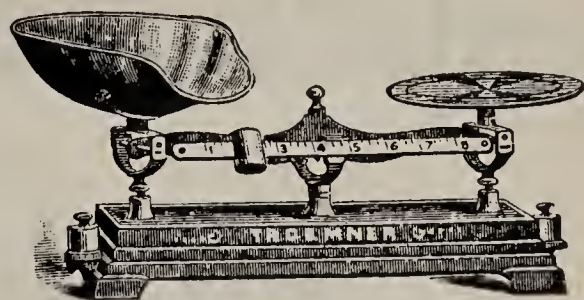


Fig. 39. AGATE SEED SCALE

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and Grading of Seed,  
Grain, etc.**

*Many Types for Many Uses*

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## SEEDSMEN'S SUPPLIES—Continued

## Scales—Counter or Platform—Continued

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Seed Trade Reporting Bureau**  
**Chicago, Ill.**  
 (See Adv. on Page 151)

**Toledo Scale Co.**  
**Toledo, Ohio**

**Torsion Balance Co.**  
**New York City**

**Triner Sales Co.**  
**Chicago, Ill.**

**Troemner Co., Henry**  
**Philadelphia, Pa.**  
 (See Adv. on Page 171)

## SCALES—LABORATORY

**Seed Trade Reporting Bureau**  
**Chicago, Ill.**  
 (See Adv. on Page 151)

**Standard Scientific Supply Corp.**  
**New York City, N. Y.**

**Torsion Balance Co.**  
**New York City, N. Y.**

**Troemner Co., Henry**  
**Philadelphia, Pa.**  
 (See Adv. on Page 171)

## SCALPING SHOES

**Oliver Mfg. Co.**  
**St. Louis, Mo.**  
 (See Adv. on Page 55)

## SCARIFIERS

**Allis-Chalmers Mfg. Co.**  
**Milwaukee, Wis.**

**Cleland Mfg. Co.**  
**Minneapolis, Minn.**

**Ferrell & Co., A. T.**  
**Saginaw, Mich.**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Savage Co., W. J.**  
**Knoxville, Tenn.**

## SCREENS

**Cleland Mfg. Co. (Sieves)**  
**Minneapolis, Minn.**

**Erdle Perforating Co.**  
**Rochester, N. Y.**

**Ferrell & Co., A. T.**  
**Saginaw, Mich.**

**Howes Co., Inc., S.**  
**Silver Creek, N. Y.**  
 (See Adv. on Page 167)

**Huntley Mfg. Co.**  
**Brocton, N. Y.**

**Seed Trade Reporting Bureau**  
**Chicago, Ill.**  
 (See Adv. on Page 147)

**Sutton, Steele & Steele, Inc.**  
**Dallas, Texas**  
 (See Adv. on Page 21)

## SEALS

**Bates Valve Bag Corp.**  
**New York, N. Y.**

**Brooks Co., E. J.**  
**Newark, N. J.**  
 (See Adv. on Page 165)

**Porter Safety Seal Co.**  
**Chicago, Ill.**  
 (See Adv. on Page 165)

**Protecto-Seal Co.**  
**Buffalo, N. Y.**  
 (See Adv. on Page 165)

## SEED CASES

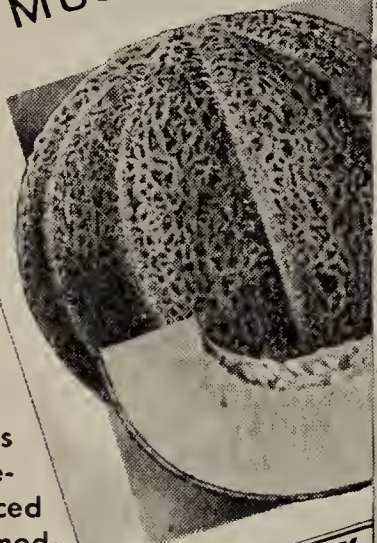
**Heller & Co., W. C.**  
**Montpelier, Ohio**

**Walkerbilt**  
**Penn Yan, N. Y.**

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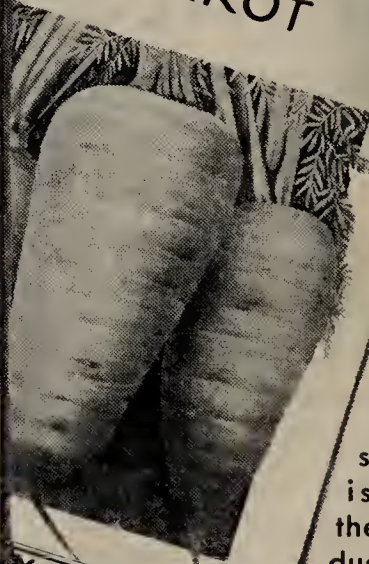
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**SEED CORN TESTERS**

Baier Bros. Mfg. Co.  
Cissna Park, Ill.  
Seed Trade Reporting Bureau  
Chicago, Ill.  
(See Adv. on Page 87)  
Specialty Mfg. Co.  
St. Paul, Minn.

**SEED DRIERS**

Ellis Drier Works  
Chicago, Ill.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)  
Randolph Co., O. W.  
Toledo, Ohio  
Richards & Sons, Ross V.  
North Manchester, Ind.

**SEED ENVELOPE SEALERS**

Arnold, Schuyler  
Coldwater, N. Y.  
(See Adv. on Page 163)  
Stokes & Smith Co., The  
Philadelphia, Pa.  
Wright-Dalton Machine Co.  
Durham, N. C.

**SEED EXTRACTORS—SPIRAL  
ROUND**

Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

**SEED PACKETS**

Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
(See Adv. on Page 163)  
Disbrow Mfg. Co.  
Newark, N. J.  
(See Adv. on Page 174)  
Galloway Lithographing Co.  
San Francisco, Calif.  
(See Adv. on Page 165)  
Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Heinrich, Inc., John A.  
Minneapolis, Minn.  
Horticultural Press, Inc., The  
Chicago, Ill.  
(See Adv. on Page 172)  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.  
(See Adv. on Page 173)

**SEED PACKET DISPLAY RACKS**

Davis Metal Fixture Co.  
Lansing, Mich.  
(See Adv. on Page 175)  
Everitt's Convertible Display Case Co.  
Decatur, Ga.  
Hamilton Mfg. Co.  
Two Rivers, Wis.  
Heller & Co., W. C.  
Montpelier, Ohio  
Horticultural Press, Inc., The  
Chicago, Ill.  
(See Adv. on Page 172)  
Manitowoc Building Supply Co.  
Manitowoc, Wis.  
Walkerbilt  
Penn Yan, N. Y.  
Webster Co., Mel. L.  
Independence, Iowa

**SEED POLISHERS**

Goodner Pump & Mfg. Co.  
Rocky Ford, Colo.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
(See Adv. on Page 167)

**SEED SAMPLE ENVELOPES**

Bemis Bro. Bag Co.  
St. Louis, Mo.  
(See Adv. on Page 1)  
Berkowitz Envelope Co.  
Kansas City, Mo.  
Cupples-Hesse Env. & Litho. Co.  
St. Louis, Mo.



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ROCHESTER NEW YORK



**SEEDSMEN'S SUPPLIES—Concluded****SEED SAMPLE ENVELOPES—Continued****Disbrow Mfg. Co.****Newark, N. J.**

(See Adv. on Page 174)

**Heco Envelope Co.****Chicago, Ill.**

(See Adv. on Page 169)

**Heinrich, Inc., John A.****Minneapolis, Minn.****Miller, Tompkins & Co.****East Rutherford, N. J.**

(See Adv. on Page 169)

**Stecher-Traung Lithograph Corp.****Rochester, N. Y.**

(See Adv. on Page 173)

**Tension Envelope Co., Inc.****Brooklyn, N. Y.****Weaver Mailing Envelope & Box Co.****Philadelphia, Pa.****Western Envelope Co.****Kansas City, Mo.****SEED THRESHERS****Allis-Chalmers Mfg. Co.****Milwaukee, Wis.****Caledonia Bean Harvester Works****Caledonia, N. Y.****Case Co., J. I.****Racine, Wis.****Goodner Pump & Mfg. Co.****Rocky Ford, Colo.****Gray's Sons, Inc., A. W.****Poultney, Vt.****Howes Co., Inc., S.****Silver Creek, N. Y.**

(See Adv. on Page 167)

**International Harvester Co.****Chicago, Ill.****Koger Pea & Bean Thresher Co.****Morristown, Tenn.****Owens Co., J. L.****Minneapolis, Minn.****SHIPPING TAGS****Campbell Box & Tag Co.****South Bend, Ind.**

(See Adv. on Page 175)

**Cupples-Hesse Env. & Litho. Co.****St. Louis, Mo.****Dennison Mfg. Co.****Framington, Mass.****Disbrow Mfg. Co.****Newark, N. J.**

(See Adv. on Page 174)

**SIEVE DRIVES****Howes Co., Inc., S.****Silver Creek, N. Y.**

(See Adv. on Page 167)

**STORE FIXTURES****Davis Metal Fixture Co.****Lansing, Mich.**

(See Adv. on Page 175)

**Heller & Co., W. C.****Montpelier, Ohio****Manitowoc Building Supply Co.****Manitowoc, Wis.****National Cash Register Co.****Dayton, Ohio****Walkerbilt****Penn Yan, N. Y.****TRADE MARK REGISTRATIONS****Anderson, Wm. E.****Chicago, Ill.****Ely & Pattison****New York, N. Y.****Scheible, Albert****Chicago, Ill.****TRUCKS—WAREHOUSE****Chase Foundry & Mfg. Co.****Columbus, Ohio****Steubing Truck Co.****Cincinnati, Ohio****WRAPPING MACHINES—AUTO-MATIC****American Machinery & Foundry Co.****Brooklyn, N. Y.****Ferguson Co., J. L.****Joliet, Ill.****Lehmann Co., Inc., J. M.****New York, N. Y.****WRAPPING PAPER****Disbrow Mfg. Co.****Newark, N. J.**

(See Adv. on Page 174)

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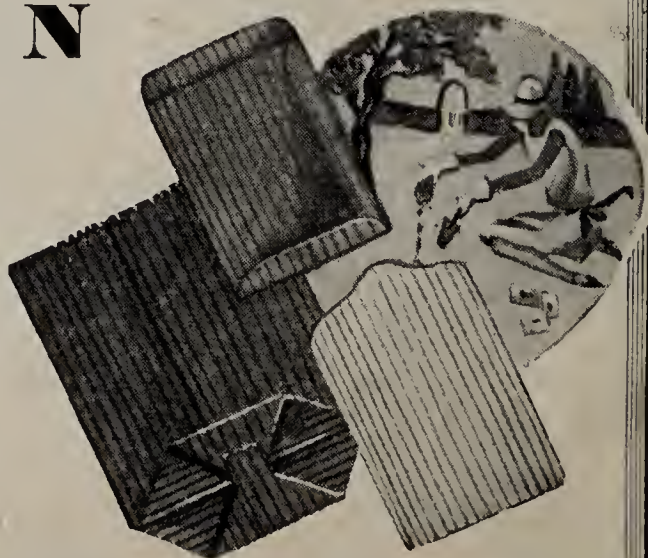
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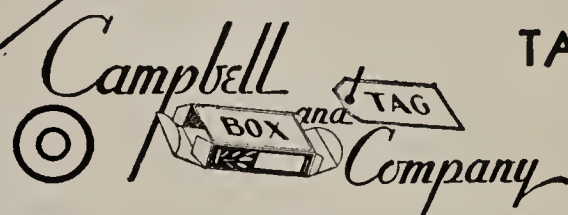


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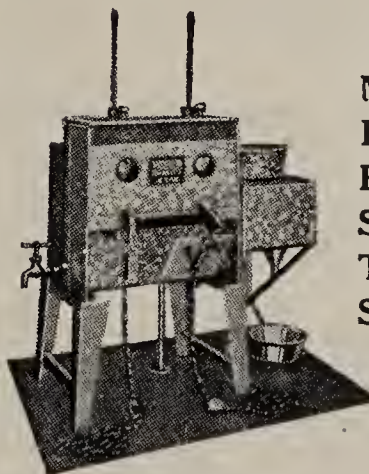
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## EDITORIAL INDEX OF SEED WORLD—1934

*For our readers' convenient reference a topical index of the most important articles published in Seed World from January to November, inclusive, during 1934, is given below. Copies of any particular issue (while the supply is available) may be procured by addressing a request to Seed World, Editorial Department, 325 W. Huron St., Chicago, Ill.—Price 15 cents per copy.—Ed.*

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A Definite Advertising Plan Gets Best Results for This Seed Firm—Page 30, June 22.

Retailer Adapts His Advertising Copy to Weather Conditions and It Pays—Page 13, Sept. 14.

### BULBS

Holland Bulb Production Is Restricted—Page 9, Jan. 5.

Domestic Bulbs Improving in Quality—Page 46, May 11.

Daffodil Sunday Attracts Thousands—Page 32, May 25.

Unusual Bulb Display Expected to Double Sales in Des Moines Seed Store—Page 12, Sept. 28.

Seed Store Increases Fall Bulb Business by Making Special Offers—Page 34, Oct. 12.

### CATALOGS

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Inaccurate Descriptions in Seed and Plant Catalogs—Page 9, Sept. 28.

### CODES

Code Committee Urges Cooperation from All Members of the Industry—Page 12, Jan. 19.

Committee Reports on Progress with Seed Industry's Code—Page 7, Apr. 13.

Code Authorities Approve Longer Working Hours for Seed Retailers—Page 13, May 11.

N. R. A. Approves Seed Trade Code—Page 7, May 25.

Public Hearing on Seed Code Postponed—Page 6, June 8.

Report on Seed Code Hearing—Page 5, July 20.

### COLLECTIONS

Use Diplomacy in the Collection of Overdue Coin!—Page 22, June 22.

Personal Contact Keeps Collections in Good Shape and Gets New Business—Page 38, June 22.

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Farm Seed Group Holds Big Mid-Winter Meeting—Page 6, Jan. 19.

Illinois Nurserymen Meet at Chicago—Page 34, Jan. 19.

Pacific Coast Seedsmen Will Meet in the Beautiful Yosemite Valley June 1 and 2—Page 8, Apr. 27.

Hotel Claridge—Headquarters for Southern Convention—Page 6, May 11.

Western Seedsmen Hold Their Annual Spring Meeting—Page 12, May 11.

Interesting Program for Pacific Coast Seedsmen's Convention Issued—Page 5, May 25.

The Charm of the Old South Awaits Seedsmen at Memphis—Page 15, May 25.

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Pacific Coast Seedsmen Stage a Fine Convention at Yosemite—Page 8, June 8.

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Virginia Seedsmen Gather at Richmond for Annual Convention—Page 17, Aug. 3.

Nurserymen Hold Eventful Convention—Page 24, Aug. 3.

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